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Climate change and Africa: The normative framework of the African Union

Thesis submitted for the degree *Doctor Legum* (LL.D) in International Aspects of Law at the Potchefstroom Campus of the North-West University

by

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LLB, LLM

Student number: 21890854

Promotor: Prof W Scholtz

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The research for this study was completed on 30 September 2013. The study reflects the legal position relating to climate change in the African Union (AU), the Southern African Development Community (SADC), the Economic Community of West African States (ECOWAS), the East African Community (EAC), and all the related legal instruments in existence at this date.

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PUBLICATIONS AND CONFERENCE CONTRIBUTIONS EMANATING FROM DOCTORAL STUDIES

Articles published

Pallangyo DM "International climate change regime and developing countries" 2012 *Tumaini University Makumira Law Review* Vol. 1 No 1, 273-297.

Pallangyo DM "Addressing climate change-induced migration through environmental refugee discourse: Relevance of Kampala convention" *Tumaini University Makumira Law Review* (forthcoming).

Pallangyo DM "AU normative framework on the climate change problem: Analysis of the Maputo nature convention" *Law, Environment and Development Journal* (forthcoming).

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Pallangyo DM *SADC environmental law and climate change* A paper presented at Oliver Tambo Moot Court, Faculty of Law, University of Cape Town 25 October 2012.

Pallangyo DM *Legal and policy analysis of climate change adaptation in Tanzania* A paper presented at IUCN Conference in Maputo 20-23 March 2011.

Pallangyo DM *Climate change and the AU* A paper presented at a Conference at Jan Smuts House, University of Witwatersrand South Africa 10 November 2010.

LIST OF ABBREVIATIONS

ACHPR	African Charter on Human and Peoples' Rights
AEC	African Economic Community
AfDB	African Development Bank
Afr J Int'l Comp L	African Journal of International and Comparative Law
AJIL	American Journal of International Law
AIACC	Assessment of Impacts and Adaptation to Climate Change
AMCEN	African Ministerial Conference on the Environment
Am J Int'l L	American Journal of International Law
APRM	African Peer Review Mechanism
AU	African Union
AUC	African Union Commission
CAHOSOCC	Conference of African Heads of State and Government on Climate Change
CBDR	Common but Differentiated Responsibilities
CDM	Clean Development Mechanism
CEMAC	Central African Monetary and Economic Union
COMESA	Common Market for Eastern and Southern Africa
COP	Conference of Parties
DPA	Durban Platform for Enhanced Action
EAC	East African Community
ECOSOCC	Economic and Social Council
EDPs	Environmentally Displaced Persons
EEC	European Economic Community
EJIL	European Journal of International Law
EMAS	Eco-Management and Audit Scheme
EPA	Economic Partnership Agreement
EU	European Union
FDI	Foreign direct investment
Fordham Int'l L J	Fordham International Law Journal

GCF	Green Climate Fund
GEF	Global Environmental Facility
GHG	Green House Gas
Hum Rts Q	Human Rights Quarterly
ICCPR	International Covenant on Civil and Political Rights
ICESCR	International Covenant on Economic, Social and Cultural Rights
ICJ	International Court of Justice
ICLQ	International and Comparative Law Quarterly
IDPs	Internally Displaced Persons
ILR	International Law Reports
Int'l & Comp L Q	International and Comparative Law Quarterly
IPCC	Intergovernmental Panel on Climate Change
IUCN	International Union for Conservation of Nature
J Afr Econ	Journal of African Economics
JCAS	Journal of Contemporary African Studies
JCMS	Journal of Common Market Studies
J Int'l Econ L	Journal of International Economic Law
JMAS	Journal of Modern African Studies
JSAS	Journal of Modern African Studies
JWTL	Journal of World Trade Law
LDC	Least Developed Countries
LDCF	Least Developed Countries Fund
Mich J Int'l L	Michigan Journal of International Law
MRV	Monitoring, Reporting and Verification
NAI	New African Initiative
NAMAs	Nationally Appropriate Mitigation Actions
NAPs	National Adaptation Plans
NEPAD	New Partnership for Africa's Development
NQHR	Netherlands Quarterly of Human Rights

NYU J Int'l L & Pol	New York University Journal of International Law and Policy
OAU	Organisation of Africa Unity
OECD	Organisation for Economic Co-operation and Development
OHCHR	Office of High Commissioner on Human Rights
PAP	Pan-African Parliament
PER	Potchefstroom Electronic Law Journal
PTA	Preferential Trade Area
PSC	Peace and Security Council
Q J Econ	Quarterly Journal of Economics
RCC	Regional Climate Centers
RIA	Regional Integration Agreement
RISDP	Regional Indicative Strategic Development Plan
RTA	Regional trade agreement
SACU	South African Customs Union
SADC	South African Development Community
SADCC	Southern African Development Coordination Conference
SADCLJ	SADC Law Journal
S Afr J Econ	South African Journal of Economics
SA Merc LJ	South African Mercantile Law Journal
SAYIL	South Africa Yearbook of International Law
SCCF	Special Climate Change Fund
SIDC	Small Island Developing Countries
TDCA	Trade Development and Cooperation Agreement
UNECA	United Nations Economic Commission for Africa
UNFCCC	United Nations Framework Convention on Climate Change
UNGA	United Nations General Assembly
UNHRC	United Nations Human Rights Council
UNHCR	United Nations High Commissioner for Refugees

U Pa J Int'l Econ L	University of Pennsylvania Journal of International Economic Law
Va J Int'l L	Virginia Journal of International Law
WCED	World Commission on Environment and Development
WMO	World Meteorological Organisation
WTO	World Trade Organisation
Yale L J	Yale Law Journal

SUMMARY OF THE THESIS

There is enough evidence on how climate change consequences will adversely affect Africa despite the fact that it is the continent that has least contributed to the problem. The international climate change regime recognises Africa's vulnerability to climate change and provides for special treatment under the United Nations Framework Convention on Climate Change (the UNFCCC). Thus, the international climate change regime presents an opportunity for African countries to adapt and mitigate the consequences of climate change through the UNFCCC mechanism. However, the international climate change legal regime has not been able to adequately assist African countries to address the consequences of climate change under the vulnerability principle. Although the current international climate change regime requires developed countries to reduce their greenhouse gas (GHG) emissions, Africa needs to take steps itself to address the problem, because it is most vulnerable to the consequences of climate change.

The African Union (AU) could play a great role in ensuring that the international climate change regime addresses the consequences of climate change in the region. This could be done through fostering strong African common positions during international climate change negotiations. A strong common position could strengthen African bargaining power and might result in more funding, capacity building and technology development and transfer for adaptation and mitigation programmes under the UNFCCC-Kyoto Conference of Parties. However, reaching a strong common position requires the cooperation of the AU member states. In this context, African regional integration is an opportunity for the AU to foster such cooperation among member states. The Treaty Establishing the African Economic Community (the Abuja Treaty), the Constitutive Act of the AU and the Protocol on the Relations between the AU and Regional Economic Communities (RECs) prioritise regional economic integration and call for states' cooperation, but the call has not yet been heeded. To realise deep and viable African integration, there must be a well-structured institutional and legal framework that defines the relationship between the AU, the AEC and the RECs.

African regional integration is also seen as an avenue whereby the AU can create its own regional climate-change regime. In this regard, the AU's and RECs' normative framework on climate change is examined in order to assess whether it adequately integrates climate change issues. This study finds that although Africa is most vulnerable to the consequences of climate change, the AU's and RECs' normative framework on climate change is weak and inadequate to address the problem. The Framework should integrate climate change issues in order to achieve sustainable development. The AU should also ensure that member states ratify the relevant treaties and protocols (the Maputo Nature Convention and the Protocol establishing the African Court of Justice and Human Rights) that have not yet been ratified in order that they may become operational. The Maputo Nature Convention puts sustainable development in the forefront of attention as a reaction to the potentially conflicting environmental and developmental challenges facing the continent (such as climate change), but it is not yet in force.

This work finds that human rights law can strengthen the AU's role in addressing climate change through its normative framework. The human rights approach to climate change under the African Charter on Human and Peoples' Rights (the Banjul Charter) is a viable avenue because human rights law forms the basis for states' responsibility based on human rights obligations and principles. The extraterritorial application of the Banjul Charter presents an avenue for AU institutions such as the Human Rights Commission and the African Human Rights Court to curb the effects of climate change through a human rights lens.

The future of the AU is presented within the context of a set of recommendations that identify strong African regional integration as an avenue through which the AU can foster the cooperation of member states to address the consequences of climate change in the AU's and RECs' normative frameworks. General recommendations are made on the need for the international climate change regime to pay more attention to issues of funding, capacity building and technology development and transfer on the basis of the vulnerability principle and in relation to the principles of equity and common

but differentiated responsibilities and respective capabilities. Also, the AU needs to strengthen its legal and institutional structures to ensure deep African integration that is capable of addressing common challenges such as the consequences of climate change.

Opsomming

Daar is voldoende getuienis dat klimaatsverandering Afrika in die besonder nadelig gaan beïnvloed. Dit ten spyte van die feit dat Afrika nie die grootste bydrae tot klimaatsverandering gemaak het nie. In die *United National Framework Convention on Climate Change* (die UNFCCC) word spesifiek voorsiening gemaak vir Afrika. Dit skep die moontlikheid vir Afrika om, deur die meganismes geskep in die UNFCCC, by die gevolge van klimaatsverandering aan te pas en dit te mitigeer. Die internasionale klimaatsverandering regime staan egter nie Afrika lande voldoende by om die probleem, veral onder die kwesbaarheids beginsel, na behore aan te spreek nie.

Die Afrika Unie (AU) kan 'n groter rol speel om te verseker dat die internasionale regime 'n belangriker rol speel om klimaatsverandering in Afrika aan te spreek. 'n Sterk verenigde standpunt van die AU gedurende onderhandelinge is noodsaaklik. Dit kan meer befondsing, kapasiteitsbou, tegnologiese ontwikkeling en oordrag, asook van aanpassingsplanne en mitigasieplanne verseker. Dit sal samewerking onder die verskillende Afrika state verg. In hierdie verband is regionale integrasie 'n goeie geleentheid om sodanige samewerking te bewerkstellig. Die *Treaty Establishing the African Economic Coomunity* (die *Abuja Treaty*), die *Constitutive Act of the AU* en die *Protocol on the Relations between the AU and Regional Economic Communities*, prioritiseer regionale ekonomiese integrasie. Om diep en volhoubare integrasie te verseker moet daar 'n goed gestruktureerde institusionele en regsraamwerk wees wat die verhouding tussen die AU en die regionale ekonomiese gemeenskappe beheers.

Regionale integrasie in Afrika is ook 'n wyse waarop die AU sy eie regionale klimaatsveranderings regime kan skep.In hierdie verband word die normatiewe raamwerk oor klimaatsverandering ondersoek ten einde vas te stel of dit klimaatsverandering probleme voldoende aanspreek. Die studie bevind dat Afrika besonder blootgestel is aan die gevolge van klimaatsverandering, desnieteenstaande is die normatiewe raamwerk van beide die AU en Regionale instrumente baie oppervlakkig en onvoldoende om die probleem aan te spreek. Hierdie aspek sal aangespreek moet word om volhoubare ontwikkeling te verseker. Die AU sal verder moet verseker dat lidstate die relevante konvensies en protokolle ratifiseer. Die *Maputo Nature Convention* plaas byvoorbeeld volhoubare ontwikkeling op die voorgrond maar is dit nog nie in werking nie.

In hierdie studie word bevind dat menseregte die AU se rol om klimaatsverandering aan te spreek kan versterk deur 'n gepaste normatiewe raamwerk. Die menseregte benadering onder die *Banjul Charter* is 'n lewensvatbare benadering aangesien menseregte die basis vorm van state se verantwoordelikheid, gebaseer op menseregte beginsels en verpligtinge. Die buite territoriale werking van die *Banjul Charter* stel 'n moontlikheid vir AU instellings soos die Menseregte Kommissie en die Afrika Hof op Menseregte daar om die effek van klimaatsverandering teen te werk deur 'n menseregte bril.

Dit word voorgestel dat sterk regionale integrasie 'n moontlikheid is om die AU in staat te stel om samewerking tussen state te verseker ten einde die effek van klimaatsverandering binne normatiewe raamwerke aan te spreek. Algemene voorstelle word gemaak dat die internasionale klimaatsverandering regime meer aandag moet gee aan befondsing, kapasiteitsbou en tegnologiese ontwikkeling en oordrag op die basis van die kwesbaarheids beginsel en met verwysing na beginsels van billikheid en gemeenskaplike maar gedifferensieerde verantwoordelikheid en vermoëns. Die AU moet verder sy regs en institusionele strukture versterk ten einde dieper Afrika

integrasie te verseker wat in staat sal wees om gemeenskaplike uitdagings soos die gevolge van klimaatsverandering die hoof te bied.

KEY WORDS

International climate change regime, regional integration, regional integration theories, normative framework, the Constitutive Act of AU, human rights, African Charter on Human and Peoples Rights, SADC Treaty, EAC Treaty, ECOWAS Treaty, African Economic Community (AEC), state cooperation, extraterritorial application of human rights law.

CONTENTS

Dedication ii
Acknowledgements iv
Publications and Conference Contributions Emanating from Doctoral Studies v
List of Abbreviations vii
Summary of the Thesis xi
Key words xvi
Chapter 1: Introduction 1
1.1 Background 2
1.2 Objectives of the study 9
1.3 Problem statement 10
1.4 Hypotheses 10
1.5 Methodology 12
1.5.1 Literature study 12
1.5.1.1 Descriptive and analytical approaches 12
1.5.1.2 Historical research 12
1.6 Overview of the chapters 13
Chapter 2: Multiple Threats of Climate Change in Africa 15
2.1 Introduction 16
2.2 Climate change impacts on the environment 21
2.2.1 Loss of biodiversity 22
2.2.2 Rising temperature and desertification 28
2.2.3 Decreased agricultural yield and famine 31
2.2.4 Rising sea levels and damaged coastal infrastructure 33
2.2.4.1 Changing ocean ecology 34
2.2.5 Water scarcity 36
2.3 The socio-economic impacts of climate change 40
2.3.1 Diseases 40
2.3.2 Human migration 45
2.3.3 Environmental security 48

2.4	Sustainable development and Africa's vulnerability	53
2.4.1	African vulnerability to the heightened impacts of climate change	56
2.5	Concluding remarks	58
Chapter 3:	**The International Climate Change Regime And Africa**	**60**
3.1	Introduction	61
3.2	The International climate change normative framework	62
3.2.1	The UN framework convention on climate change of 1992	63
3.2.2	The Kyoto protocol of 1997	66
3.2.3	Principles of the climate change regime	72
3.2.3.1	Sustainable development	73
3.2.3.2	The Common but differentiated responsibilities and respective capabilities principle	78
3.2.3.3	The precautionary principle	86
3.2.3.4	Equity	90
3.2.3.5	The special situation/vulnerability principle	95
3.2.4	UNFCCC conferences of the parties (COPs)	100
3.2.4.1	COP 15 and the Copenhagen accord	102
3.2.4.2	COP 16 and Cancun agreements	111
3.2.4.3	COP 17 and the Durban platform for enhanced action	113
3.2.4.4	COP 18 and the Doha climate gateway	114
3.2.4	Differential treatment	116
3.2.5	Post-2015 climate change agreements under the Durban platform	118
3.3	The climate change regime and Africa	120
3.3.1	Africa's vulnerability and the climate change regime	121
3.3.1.1	Technology transfer and CDM	123
3.4	Concluding remarks	126
Chapter 4:	**Regionalism And Regional Integration In Africa**	**128**
4.1	Introduction	129
4.2	Globalisation and regionalism in Africa	130
4.3	Regionalism and regional integration: definitions and theories	132
4.3.1	Theories of regionalism	133

4.3.2	Theories of regional integration	136
4.3.2.1	Functionalism	136
4.3.2.2	Neo-functionalism	138
4.3.2.3	Inter-governmentalism	140
4.3.3	The principles of state sovereignty and subsidiarity	143
4.3.3.1	State sovereignty	143
4.3.3.2	The subsidiarity principle	145
4.4	Regionalism and integration in Africa	149
4.4.1	Regionalism versus African regional integration	150
4.4.2.1	The Abuja Treaty of 1994	150
4.4.2.2	The Constitutive Act of the AU of 2002	153
4.4.2.3	The protocol on relations between the AU and RECs of 2007	154
4.5	Concluding remarks	161
Chapter 5:	**The Au's And Rec's Normative Framework Relation To Climate Change**	**164**
5.1	Introduction	166
5.2	The AU's normative framework	168
5.2.1	The Constitutive Act of the AU of 2002	169
5.2.1.1	The new partnership for Africa's development base document	173
5.2.1.2	AU declaration on climate change of 2007	175
5.2.1.3	Nairobi declaration on the African process for combating climate change of 2009	176
5.2.1.3.1	The AU common position on climate change	177
5.2.3	African convention on the conservation of nature and natural resources of 1968	183
5.2.4	Maputo nature convention	185
5.2.5	AU convention for the protection and assistance of internally displaced persons of 2009	192
5.2.5.1	Addressing climate change-induced IDPs through environmental refugee discourse	194
5.3	REC's normative framework relating to climate change	204

5.3.1	Southern Africa Development Community (SADC)	205
5.3.1.1	The Treaty of the Southern Africa Community	206
5.3.1.2	The SADC protocols	208
5.3.1.2.1	The SADC protocol on forestry	208
5.3.1.2.2	The SADC protocol on shared watercourses	213
5.3.1.2.3	The SADC protocol on energy	216
5.3.2	The East African Community	219
5.3.2.1	The Treaty for the establishment of the EAC of 1999	220
5.3.2.2	The EAC protocol on the environment and natural resources management	221
5.3.2.3	The EAC climate change policy	224
5.3.3	The Economic Community of West African States	229
5.3.3.1	The ECOWAS revised Treaty of 1993	230
5.3.3.2	The ECOWAS environmental policy 2008	232
5.3.3.3	The ECOWAS climate change declaration	234
5.4	Concluding remarks	237
Chapter 6:	**Climate Change And International Human Rights Law In Africa**	**239**
6.1	Introduction	240
6.2	Human rights and climate change	242
6.2.1	The UNHRC resolutions on human rights and climate change	244
6.2.2	Critical appraisal of the linkage human rights and climate change	251
6.3	The duty to cooperate and the extraterritorial application of human rights law	258
6.3.1	The duty of states to cooperate	259
6.3.2	Extraterritorial application of human rights law	262
6.4	African human rights law and climate change	269
6.4.1	The African human rights commission's resolution 153	271
6.3.1.1	The implications of climate change for the enjoyment of human rights in Africa	273
6.4.1.1.1	The right to life	274
6.4.1.1.2	The right to food	275

6.4.1.1.3 The right to water 280
6.4.1.1.4 The right to health 283
6.4.2 The Banjul Charter of 1981 285
6.4.2.1 The African Human Rights Commission's interpretation 288
6.5 Concluding remarks 298
Chapter 7: Conclusion And Recommendations 300
7.1 Conclusion 301
7.2 Recommendations 302
7.2.1 General recommendations 302
7.2.1.1 The international climate change regime 302
7.2.1.2 African regional integration 306
7.2.1.3 The human rights approach to climate change 310
7.2.2 Specific recommendations 312
Bibliography 313

CHAPTER 1: INTRODUCTION

Contents of this chapter

1.1 Background 2
1.2 Objectives of the study 9
1.3 Problem statement 10
1.4 Hypotheses 10
1.5 Methodology 12
1.5.1 Literature study 12
1.5.1.1 Descriptive and analytical approaches 12
1.5.1.2 Historical research 12
1.6 Overview of the chapters 13

1.1 Background

Climate change is the most fundamental environmental challenge facing the world today.[1] Never before has the international community been faced with a problem of this magnitude threatening not only the present generation but generations yet unborn.[2] Climate change impinges on every aspect of human life. It has implications for public health, social issues such as migration, the loss of livelihood and potentially it threatens international peace and security.[3] The major concern now is how to respond to the implications of global climate change. Broad consensus exists amongst the world's foremost climate change scientists, who were involved in drafting the Intergovernmental Panel on Climate Change (IPCC) 4th assessment report that global greenhouse gas emissions due to human activities have contributed to the warming of earth's surface.[4]

While no state in the international community would escape the consequences of climate change, vulnerable developing countries, particularly in Africa, will be affected very adversely.[5] It is mainly poor and vulnerable communities that will disproportionably bear the consequences of climate change; communities that have hardly contributed to

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1 Ong DM "International legal efforts to address human-induced global climate change" in Fitzmaurice M *et al* (eds) *Research handbook on international environmental law* 2010 Edward Elgar Publishing Ltd. Northampton) 450-470. See also the UNDP report 2007/2008. Concern over climate change has literally and figuratively taken over every corner of our planet.

2 French D "The principle of common but differentiated responsibilities and the balance of commitments under the climate regime" 2000 *Review of European Community and International Environmental Law* 9(2) 120-131.

3 See Garcia D "The climate security divide: Bridging human security in Africa" 2008 Vol. 17 No. 3 *African security review* 2-17, Kuwali D "From the west to the rest: climate change as a challenge to human security in Africa" 2008 Vol. 17 No. 3 *African security review* 18-38 and Werner S "One Environment different countries: A discourse on common but differentiated responsibilities' 2008 *South African Yearbook of International Law.*

4 IPCC "Climate change 2007: Synthesis report" (2007) available at http://www.ipcc.ch/pdf/assessment-report/ar4/syr/ar4.pdf (accessed on 20 March 2010).

5 See Powers A "Climate change and pollution: Addressing intersecting threats to oceans, coasts and small island states" in Leary D and Pisupati B (eds)*The future of international environmental law* (United Nations University Press 2010) 19-41.

the problem.[6] These communities have the least capacity to respond to the potential consequences of climate change.[7]

Africa is one of the world's most vulnerable regions. The IPCC fourth assessment report clearly identifies Africa as one of the continent's most vulnerable to the effects of climate change.[8] For instance, during the 20th century alone, the African region experienced a warming of 0,5 degrees.[9] Climatic changes in Africa suggest a future of increasingly scarce water, collapsing agricultural yields, encroaching desert and damaged coastal infrastructure, and in many cases climate change in Africa is already showing alarming effects and consequences.[10] Particularly in Sub-Saharan Africa, climate uncertainty has shown a decline in rainfall and increased flooding, desertification, a decrease in food production, warmer temperatures, and an increase in disease. [11] These consequences have been an additional factor with the potential to exacerbate the already existing problems in Africa such as poverty, hunger, conflicts, bad governance etc.[12]

Moreover, the devastating consequences of climate change have even been shown to cause conflict in some areas and have the potential to ignite war.[13] Such impacts could

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6 Cameron P "From principles to practice: The Kyoto Protocol" 2000 *Journal of Energy and Natural Resources Law* 18(1) 1-18.

7 See Gray K and Gupta J "The United Nations climate change regime in Africa" in Chaytor B and Gray KR (eds) *International environmental law and policy in Africa* (Kluwer Academic Publishers London 2003) 60-82.

8 IPCC fourth assessment working group II report chapter four available at http://www.ipcc.ch/publications_data_/ar4/wg2/en/contents.html. (accessed on 20 November 2012).

9 Hulme *et al* "Global warming and African climate change: A reassessment" in Low (ed) *Climate change and Africa* (Cambridge University Press 2005) 30 and Scholtz W "The African continent and the special situation/vulnerability principle in the climate change" 2011 *South African Yearbook of International Law* 201-208.

10 IPCC (2007) fourth assessment working group 11 report 444.

11 Brown and Crawford "Climate change: A new threat to stability in West Africa" 2008 Vol. 17 No. 3 *African security review* 40. See also Garcia D "The climate security divide: Bridging human security in Africa" 2008 Vol. 17 No. 3 *African security review* 2-17 and Kuwali D "From the west to the rest: climate change as a challenge to human security in Africa" 2008 Vol. 17 No. 3 *African security review* 18-38.

12 Mwangi OG "Environmental change and human security in Lesotho: The role of the Lesotho highlands water project in environmental degradation 2008 Vol. 17 No.3 *African Security Review* 60.

13 Mwangi (2008) *African Security Review* 60.

also undermine the capacity of large parts of Africa to address developmental issues causing destabilizing population movements and tension over dwindling strategic resources. In such cases, climate change could be a factor that tips fragile African states into socio-economic and political collapse.[14]

Climate change impacts can also undermine many protected human rights in Africa including the right to life, health, clean environment and development.[15] The AU acknowledged the impact of climate change on the enjoyment of human rights in Africa in its resolution 153 of 2010 on "climate change and human rights in Africa".[16] This resolution emphasises the need for the AU to take legal measures for the protection of vulnerable groups such as children, women, the elderly, indigenous communities and victims of natural disasters.[17]

Although the 1981 African Charter on Human and People's Rights was the first international human rights instrument to include the right "to a general satisfactory environment favourable to development" among its guarantees, Africa has not maintained environmental protection as a high priority, presumably due to concern for economic development in Africa, which is the world's poorest region. Economic development is essential, however, if these countries are to be able to afford to adopt measures to address climate change.[18]

To be able to address climate change consequences, African countries need to strengthen their adaptive capacity. However, African countries lack the requisite

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14 Mwangi (2008) 60.

15 Beyerlin and Marauhn International environmental law (Hart Publishing 2011) 395.

16 ACHPR/Res 153 (XLVI) 09: Resolution on climate change and human rights and the need to study its impacts in Africa.

17 See ACHPR/Res 153 (XLVI) 09: 14.

18 Ouguergouz F *African charter on human and peoples' rights: A comprehensive agenda for human dignity and sustainable democracy in Africa* (Kluwer Law International: Kluwer 2003) 51-52.

expertise and technology to adapt to the consequences of climate change.[19] Adaptation policies and measures are very costly and developing countries do not have the resources to do so, which then leads to the next logical step in the chain of reasoning - that there should therefore be transfer of resources from the rich to the poor so that the poor can adapt to the consequences of climate change on the basis of the Common but Differentiated Responsibilities and Respective Capabilities (CBDR) principle.[20]

The existing international, legal and institutional architecture to address the consequences of climate change are the United Nations Framework Convention (UNFCCC)[21] and the Kyoto Protocol.[22] Both the UNFCCC[23] and the Kyoto Protocol[24] require parties to recognise the disparity in the adaptive needs and capacities between developed and developing countries and the urgent need to provide assistance to the latter. Article 4(4) of the UNFCCC states that:

> the developed country Parties and other developed Parties included in Annex II shall assist the developing country Parties that are particularly vulnerable to the adverse effects of climate change in meeting the costs of adaptation to those adverse effects.

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19 Scholtz W "The promotion of regional environmental security and Africa's common position on climate change" 2010 *African Human Rights Journal* 1-25.

20 Under Art 3 of the UNFCCC of 1992.

21 UN Framework Convention on Climate Change of 1992 ILM 31, 849.

22 Kyoto Protocol to the UN Framework Convention on Climate Change of 1998 ILM 37, 22.

23 Art 4(4).

24 Art 10.

The above provision serves as an important legal basis for securing funding from developed country parties for adaptation work in developing countries. UNFCCC[25] reinforces this recognition of the unique position of developing countries by requiring Parties to the UNFCCC to give full consideration to what actions are necessary under the UNFCCC, including actions related to funding, insurance and the transfer of technology, to meet the specific needs and concerns of developing country Parties arising from the adverse effects of climate change. The convention also responds to the difficulties that Least Developed Countries face in adapting to climate change by providing that "the Parties shall take full account of the specific needs and special situations of the least developed countries in their actions with regard to funding and the transfer of technology".[26] The Kyoto Protocol also contains similar provisions relating to adaptation to climate change in developing countries.[27]

Moreover, the UNFCCC provides for the new funding mechanism,[28] which becomes operational in 2012 and is expected to become a significant source of financial assistance, not least because it may prove to be a more reliable source of funding due to its non-reliance on pledged contributions from donor countries. For instance, *COP* 17[29] established the Green Climate Fund (GCF)[30] and the National Adaptation Plans (NAPs). The COP also made resolutions regarding technology transfer[31] and capacity building[32] in developing countries.

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25 Art 4(8).
26 Art 4(9).
27 Art 10(b).
28 Art 12(8).
29 Held in Durban in the Republic of South Africa between 28 November to 11 December 2011.
30 COP Decision: FCCC/2011/CP/L.9.
31 COP Decision: FCCC/SBI/2011/L.34 together with FCCC/SBSTA/2011/L.22.
32 COP Decision: FCCC/SBI/2011/L.37.

However, although these processes are potential for Africa, they face a number of challenges. For example, in spite of the fact that the GCF was designated as an operating entity of the financial mechanism of the UNFCCC to support developing country parties, the fund lacks international legal personality and the process for the provision for replenishment.[33] Other challenges are the lack of country ownership of the project which is funded by GCF and lack of accountability to the COP. These challenges will need to be addressed in order to realise the objectives of the fund.

Almost all AU and RECs member states signed and ratified the UNFCCC and Kyoto Protocol. However, out of the fifty-three African countries, only five countries are largely responsible for Africa's regional emissions from fossil fuel and cement.[34] South Africa is by far the greatest emitter, being responsible for 39 per cent of the continental total. Forty-three per cent of CO2 emissions are from Algeria, Egypt, Libya and Nigeria. Of these countries, only Libya (with 1.98 metric tons) and South Africa (with 1.88 metric tons) have per capita emissions higher than the global average of 1.13 metric tons of carbon per year.[35]

Article 3 of the AU Constitutive Act of 2000 provides for sustainable development as one of the primary principles of the AU. The Constitutive Act stresses the need for climate change to be seen not only as an environmental concern but as a growing threat to sustainable development and poverty reduction.[36] Thus, the AU has a potential role to play when it comes to sustainable development since the Constitutive Act[37] requires it to promote sustainable development at the economic, social and cultural levels as well as the integration of African economies. The same applies to African RECs which are regarded as pillars of the AU. The AU and African RECs could foster

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33 See IISD "Summary of the Durban climate change conference" 2012 Earth Negotiating Bulletin available at http://www.iisd.ca/climate/cop17/.

34 Chaytor and Gray (2003) International Environmental Law 71.

35 Chaytor and Gray (2003) 71.

36 Acquah Torheim and Njenga "African Ministerial Conference "2005 AMCEN 1.

37 Art 3.

the cooperation of member states in order to pool resources to facilitate adaptation to climate change effects in the region.[38]

This thesis is an attempt to answer the question as to whether a regional and sub-regional approach through the AU and RECs normative framework can be devised to address the effects of climate change and promote sustainable development in Africa. This is dealt with in reference to and on the basis of the international environmental law on climate change. The AU and RECs have not adequately raised climate change as one of their key priority areas or adequately sought support from the international community through the UNFCCC-Kyoto Protocol negotiations.

There are a number of reasons why a strong international and regional framework is important for supporting countries' efforts to respond to the impacts of climate change. First, international organisations facilitate cooperation and information exchange amongst policymakers, local stakeholders and experts by hosting workshops, meetings, and establishing information databases.[39] These initiatives are important for increasing our shared knowledge about responding to climate change and building capacity. Secondly, vulnerable communities require significant financial and technical support to carry out adaptation activities. International organisations play a crucial role in providing financial support for adaptation activities. Thirdly, international legal obligations reinforce political commitment and executive action amongst Member States to address adaptation concerns. Fourthly, organizations at the international and regional levels can and do facilitate more work on adaptation at the local level by providing platforms for the development of local adaptation policies and strategies.[40]

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38 The main purpose of changing from the then |OAU to the AU was to achieve stronger African organisation that could meet new challenges facing Africa. See Maluwa T "Reimagining African unity: Some reflections on the Constitutive Act of the African Union" in Yusuf AA ed *African Yearbook of International Law* (2002 African Association of International Law in the Netherlands 3-38)

39 Cameron PD *et al* "The Kyoto present and future" (2001) 421.

40 Good examples of regional laws are the 1981 African Charter on Human and Peoples' Rights and the Bamako Convention on the Ban of Import into Africa and the Control of Transboundary Movement and Management of Hazardous Wastes within Africa. The

1.2 Objectives of the study

Africa is extremely vulnerable to the effects of climate change but does not possess the capacity to adapt. The consequences are dire and may result in poverty, underdevelopment and even conflicts. Single nation states are not equipped to deal with this problem. Cooperation among states is needed to address this problem at source in Africa. Thus, this study aims to:

- identify and analyse various climate change threats to Africa,[41]
- identify and discuss the link between climate change and sustainable development in Africa and determine how the international climate change legal regime resolves the issue of Africa's vulnerability to climate change consequences,[42]
- give an account and analysis of the international climate change legal regime and its relation to Africa,[43]
- discuss regionalism and African regional integration to identify and evaluate the various theories that shape regional integration in the world, on the African continent and in African RECs,[44]
- give an account and analysis of the AU legal instruments on environmental management and protection,[45]
- identify and analyse the relations between AU and African RECs,legal challenges to African regional integration, and propose available solutions,[46]
- give an account and analysis of the international human rights law approach to climate change effects in Africa as a viable alternative approach,[47]

Bamako Convention, for example, generally bans the Import of hazardous wastes generated outside Africa, calling unauthorized and illegal dumping a crime against the African continent.

41 Chapters 2 and 3.
42 Chapter 2.
43 Chapter 3
44 Chapters 4 and 5.
45 Chapter 5.
46 Chapter 4.
47 Chapter 6

- reach a conclusion and make recommendations on the ways which AU and RECs should employ to successfully address climate change impacts in Africa.[48]

1.3 Problem statement

The AU and RECs have not adequately raised climate change as one of the key priority areas in their normative frameworks. The current climate change related protocols do not adequately raise climate change as a threat to sustainbale development.The AU in conjunction with African RECs needs to address climate change as one of the biggest threats to sustainable development in Africa. This may mobilise more support from the international community through the UNFCCC-Kyoto Protocol negotiations and the sharing of resources between African countries. The improved African climate change normative framework may create functional institutions for proper implementation and enforcement.

1.4 Hypotheses

This thesis focuses on the hypothesis that African regional integration, through its improved normative framework, can serve as an avenue to induce the co-operation of states in order to address climate change consequences in Africa. The following hypotheses have been used to test the main hypothesis:

1.4.1 International and regional normative frameworks are important for supporting countries' efforts to respond to the impacts of climate change.

1.4.2 Climate change is a global phenomenon which requires the co-operation of States to address it.

1.4.3 Because most African countries are poor and therefore lack the resources to address the consequences of climate change, the AU and African RECs can

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[48] Chapter 7.

play a vital role in addressing this problem. The AU and RECs can facilitate the co-operation of member states in order to agree on common positions on climate change and strengthen Africa's voice during UNFCCC-Kyoto Protocol negotiations.

1.4.4 Regional initiatives are important for increasing the sharing of knowledge about how best to respond to the impacts of climate change.

1.4.5 Poor and vulnerable African communities require significant financial and technical support to carry out adaptation activities.

1.3.6 The international human rights approach to climate change may be an alternative avenue which the AU can employ to address climate change in Africa.

1.5 Methodology

1.5.1 Literature study

This study entails an analytical literature study of relevant international environmental conventions and declarations, case law, text books, contributions published in national and international journals, and authoritative electronic material on the subjects studied in this thesis. The literature study is performed in order to critically evaluate the issues raised in the problem statement.

1.5.1.1 Descriptive and analytical approaches

The main approaches that are employed in this thesis are descriptive and analytical. The descriptive approach is used to outline and describe various climate change threats to sustainable development in Africa. It is also used to outline and describe various legal instruments and institutional frameworks of the AU, the SADC, the EAC and the ECOWAS. The analytical approach is used to evaluate the said legal and institutional frameworks in order to ascertain whether or not their current form is conducive to addressing the consequences of climate change in Africa.

1.5.1.2 Historical research

According to Chingono and Nakama,[49] regional integration has manifested itself historically in Africa as bureaucratic efforts at political unification and capital expansion. In this thesis, pre-classical and classical regional integration theories are traced to see which theories fit best in the African context. Historical research on regional integration theories is also performed to trace the evolution of the AU and African RECs and

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[49] Chingono M and Nakama S "The challenges of regional integration in Southern Africa" 2009 *African Journal of Political Science and International Relations* vol 3(10) 396-408.

identify some actors and factors that have both induced and inhibited integration in the sub-regions.

Historical research is also performed to trace the development of the international climate change regime under international environmental law. The historical background is read to show how and why various international environmental law principles such as sustainable development, equity and common but differentiated responsibilities were developed.

1.6 Overview of the chapters

Chapter Two deals with an overview of various climate change threat on Africa, including climate change threats to sustainable development. Chapter Three covers the international climate change legal regime. It is important to assess the global climate change legal regime in order to determine how the regime assists Africa to address climate change consequences.

Chapter Four focuses on regionalism and regional integration in Africa. Different regional integration theories are examined for the purposes of assessing their application and benefits to the African regional integration. The chapter examines the efficacy of African regional integration in providing solutions to common challenges facing Africa. A discussion on the relations between the AU and African RECs is carried out as well as an examination of the normative frameworks guiding African integration.
Chapter Five analyses various AU and RECs normative frameworks and determines how they are conducive to addressing climate change consequences in the region. Three RECs are examined, namely the Southern Africa Development Community (SADC), the Economic Community of West African States (ECOWAS) and the East African Community (EAC).

Chapter Six discusses the linkages between climate change and human rights, based on the UN Human Rights Council Resolution 7/23[50] and the African Commission on Human and Peoples' Rights Resolution 153.[51] A few AU human rights instruments are discussed in the light of the above resolutions in order to determine the role that human rights law can play in addressing climate change in Africa.

Chapter Seven presents a conclusion and a set of recommendations based on the challenges identified throughout this thesis. Regional integration is an essential driver for the achievement of sustainable development in Africa. The study's main recommendation is that the consequences of climate change in the region can best be addressed through the regional normative frameworks of the AU and African RECs.

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50 See UN Human Rights Council (UNHRC) Res. 7/23, U.N. Doc. A/HRC/7/78 (March 28, 2008).

51 ACHPR/Res 153 (XLVI) 09: Resolution on climate change and human rights and the need to study its impacts in Africa.

CHAPTER 2: MULTIPLE THREATS OF CLIMATE CHANGE IN AFRICA

Contents of this chapter

2.1	Introduction	16
2.2	Climate change impacts on the environment	21
2.2.1	Loss of biodiversity	22
2.2.2	Rising temperature and desertification	28
2.2.3	Decreased agricultural yield and famine	31
2.2.4	Rising sea levels and damaged coastal infrastructure	33
2.2.4.1	Changing ocean ecology	34
2.2.5	Water scarcity	36
2.3	The socio-economic impacts of climate change	40
2.3.1	Diseases	40
2.3.2	Human migration	45
2.3.3	Environmental security	48
2.4	Sustainable development and Africa's vulnerability	53
2.4.1	African vulnerability to the heightened impacts of climate change	56
2.5	Concluding remarks	58

2.1 Introduction

The likely physical and social consequences of climate change and the universal nature of those consequences have made it the single biggest global environmental concern.[52] Climate consists of the elements of temperature, precipitation, wind and cloud cover, and it affects every substance on planet, whether organic or inorganic. In turn, any substance that affects the climate has other effects on the globe. The burning of fossil fuels, such as coal and oil, and the destruction of forests, have caused the atmospheric concentration of carbon dioxide to increase by 31 per cent since 1750[53], from 280 parts per million (ppm) to 370 ppm in 2000.[54]

According to the United Nations Inter-governmental Panel on Climate Change (the IPCC), climate change refers to a change in the state of the climate that can be identified (e.g., using statistical tests) by changes in the mean and/or the variability of its properties, and that persists for an extended period, typically decades or longer. The general state of the Earth's climate is largely affected by how much heat is stored in the atmosphere. Processes which affect this storage of heat can cause the climate of the Earth to change. It is not just man-made pollution of the atmosphere which can cause climate change. Changes in the amount of greenhouse gases in the air have occurred naturally during the history of the Earth, leading to climate changes.[55] Changes in the

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52 Thornton J & Beckwith S *Environmental law* 2nd ed. (Sweet and Maxwell London 2004) 3-001. Since the beginning of the industrial Revolution in the early 19th century, human activity has interfered with these homeostatic processes releasing carbon dioxide and other greenhouse gases into the atmosphere more quickly than are absorbed by natural "sinks", primarily oceans and forests. See also Hunter D, Salzman J and Zaelke D *International Environmental Law and Policy* 2nd ed. (Foundation Press New York 2002) 2.

53 See Hunter *et al* (2002) 2 and Powers A "Climate change and pollution: Addressing interesting threats to oceans, coasts and small island developing states", in Leary D and Pisupati B *The future of international environmental law* (United Nations University Press, New York 2010) 19.

54 One part per million of carbon dioxide means there is one molecule of carbon dioxide to every million molecules of air. Concentrations of methane, nitrous oxide, and other greenhouse gases are rising, with methane increasing over 150% from its 1750 level. As a result, an ever-greater proportion of the sun's energy is tapped within the atmosphere, and the planet is heating up.

55 Ong "International legal efforts to address human-induced global climate change" 450.

way ocean water circulates around the world can also influence climate, because the oceans store even more heat than the atmosphere. Changes in the amount of heat from the Sun will affect the Earth's climate too.[56] A large volcanic eruption can cause the Earth to cool over a couple of years, because huge amounts of pollution injected in the air block out a lot more sunlight.[57] Other processes can change the Earth's climate, but only very slowly, over millions of years. When continents move around the world, and when mountains ranges are built, the changing patterns of landmasses affects the way the heat in the atmosphere and in the oceans is stored. Continental drift, however, takes millions of years and so, therefore, does any climate change caused by it.[58]

The problem of climate change is quite complex, especially for a non-natural scientist. A large body of literature has been produced on climate change, most of which gives a brief explanation of the science of climate change.[59] Climate change is caused by the emission of greenhouse gases that increase the greenhouse effect. One of the complexities of climate change arises from the fact that not only is the greenhouse effect a natural phenomenon but it is also important for life on earth.[60]

The naturally occurring greenhouse effect can be described as follows: small amounts of trace greenhouse gases are present in the earth's atmosphere.[61] These gases allow the sun's rays (short-wave radiation) through, thus warming the earth's surface. However, these gases absorb heat radiated by the earth, acting as a heat trap.[62] This naturally occurring greenhouse effect maintains the earth's climate at a level which makes it possible for life on earth to exist. It is said that in the absence of these gases

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56 Weiss *International environmental law and policy* 601

57 Gray KR and Gupta J "The United Nations climate change regime and Africa" in Chaytor B and Gray KR (eds) *International environmental law and policy in Africa* (Kluwer Academic Publishers The Netherlands 2003) 68.

58 Thornton and Beckwith (2004) *Environmental law* 3-003.

59 See Gray and Gupta (2003) "The United Nations climate change regime and Africa" 67.

60 Smith (2010) *Law, Environment and Development Journal* 286.

61 Smith (2010) Law, *Environment and Development Journal* 287.

62 Mitchel RB "Technology is not enough: Climate change, population, affluence and consumption" 2012 *The Journal of Environment and Development* 24-35.

the mean temperature of the earth's surface would be 33 degrees Celsius lower than it is today.[63]

However, due to certain human activities this phenomenon that makes life on earth possible has been turned into a threat to the existence of the very life it serves to protect. Various human activities related to the combustion of fossil fuels, such as the increase in the number of vehicles on our roads and the reliance on electricity, have resulted in an increased concentration of greenhouse gases in the lower levels of the atmosphere.[64] The main greenhouse gas, carbon dioxide, is emitted principally from the combustion of fossil fuels and industrial processes. The IPCC has concluded that carbon dioxide is "responsible for over half the enhanced greenhouse effect." According to some estimates, the burning of fossil fuels contributes 73 per cent of total carbon dioxide emissions. Thus, the carbon cycle plays a central role in the science of climate change.[65]

While both the phenomenon of human induced climate change and its dangerous potential are now evident,[66] the adverse effects of climate change affect developing countries, especially those in Africa, disproportionately.[67]

As intimated in Chapter One, Africa is a most vulnerable region due to its poor adaptation to the challenges of climate change, conflicts, poverty and poor governance. Many parts of Africa are already dealing with complex conflicts stemming from tribal, religious, economic, government and ethnic differences.[68] Recently the changing environment has been an additional factor that has the potential to exacerbate all the

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63 Mitchel (2012) *The Journal of Environment and Development* 25.

64 Chertow MR "The IPAT equation and its variants: Changing views of technology and environmental impact" *Journal of Industrial Ecology* 4(4), 13-29.

65 See IPCC 4th Assessment report: Summary for policy makers 2007.

66 See IPCC 4th Assessment report: Synthesis report 2007 available at http://www.ipcc.ch/pdf/assessment-report ar4/syr.pdf (accessed on 20 March 2010).

67 Baumert K and Pershing J *Climate data: Insights and observations* (Pew Center on Global Climate Change, Washington DC 2004) 4, 11 and 13.

68 Biello D Can climate change cause conflicts?' Comments and reviews from the guardian www.scientificamerican.com.article.cfm (accessed on 31 October 2010).

other conflict influences in Africa.[69] Climatic changes in Africa suggest a future of increasingly scarce water, collapsing agricultural yields, encroaching desert, and damaged coastal infrastructure, and in many cases is already having alarming consequences. Particularly in Sub-Saharan Africa, climate uncertainty has shown a decline in rainfall and increased flooding, desertification, a decrease in food production, warmer temperatures, and an increase in disease. Not only are all of these results devastating, but the consequences of climate change have even caused conflict in some areas, and have the potential to ignite war. Such impacts could undermine the capacity of large parts of Africa to address developmental issues, causing destabilizing population movements and tension over dwindling strategic resources. In such cases, climate change could be the factor that tips fragile African states into socio-economic and political collapse.[70]

The Assessment of Impacts and Adaptations to Climate Change (AIACC)[71] study shows that climate is changing throughout African, with notable alteration of the micro – climates of the highland areas of East Africa.[72] The analysis of time – series data from 1978 to 1999 reveals that the maximum and minimum temperatures have changed, with significant increases generally recorded at all sites. Analyses of data over the period 1961 to 2002 also reveal decreasing trends in rainfall. The temperature change has been more pronounced at the higher altitudes than in the lowlands.[73] For instance, the

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69 Mwangi OG "Environmental change and human security in Lesotho: The role of the Lesotho highlands water project in environmental degradation 2008 Vol. 17 No.3 *African security review* 60.

70 Brown and Crawford "Climate change: A new threat to stability in West Africa" 2008 Vol. 17 No. 3 *African security review* 40. See also Garcia D "The climate security divide: Bridging human security in Africa" 2008 Vol. 17 No. 3 *African security review* 2-17 and Kuwali D "From the west to the rest: climate change as a challenge to human security in Africa" 2008 Vol. 17 No. 3 *African security review* 18-38.

71 AIACC Project Profile www.aiaccproject.org (accessed on 21 April 2011).

72 AIACC 2011.

73 Wandiga *et al* "Vulnerability to Climate Induced Highland Malaria in East Africa" 2004 report of the assessment of impacts and adaptation to climate change in multiple regions and sectors (AIACC) project at www.aiaccproject.org (accessed on 21 April 2011).

temperature in the Kabale district of Uganda has shot up by 2^0C (3.6^0F) in the last three decades.[74]

Development paths that are carbon intensive contribute to global warming. Africa suffers modern energy poverty, a hindrance to sustainable development.[75] Overall, Africa's per capita energy consumption remains low, and hence the contribution of the region to global climate change is minimal.[76] However, localized impacts are evident, especially where the extraction of wood for fuel is high and surpasses forestation rates.[77] It is expected that current energy consumptions patterns will prevail though the share of renewable energy will gradually increase.

Transport sector consumes the largest share of petroleum-based fuels, and alternatives are likely to be difficult to implement in Africa mainly due to the high costs involved.[78] However, the overall average number of vehicles per person in Africa remains among the lowest globally. The relaxation of the laws governing the importation of used vehicles in many countries is increasing the number of vehicles at a relatively fast rate, causing congestion and hence increased localized emissions.[79]

The clearing of forestland to make way for settlement and agriculture affects the climate system and threatens water supply systems. The share of forestland in the continent is reported to be decreasing at alarming rates.[80]

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74 AIACC 2011.

75 Kelvin and Gupta (2003) The UN *climate change regime and Africa* 67.

76 Kelvin and Gupta (2003) 67.

77 Kelly DJ "The case for social safeguards in post-2012 agreement on REDD" 2010 LEADJ 65

78 See Kituyi E, Wandinga SO and Helas G "Biomass burning in Africa: Role in atmospheric change and opportunities for emission mitigation" in Low PS (ed) *Climate change and Africa* (2005 Cambridge University Press) 79-89.

79 Pallangyo DM "Vehicular pollution in Tanzania: A forgotten responsibility?" *The Tumaini University Makumira Law Review 273-297.*

80 Odada and Olago "Halocene climatic oscillations in tropics with special reference to Africa" in Low PS (ed) *Climate change and Africa* (Cambridge University Press 2005) 7. See also Macdonald A "Improving or disproving sustainable development in the CDM in the midst of financial crisis" 2010 *Law Environment and Development Journal* 8.

There are, therefore, multiple threats that are caused by climate change in Africa. This chapter outlines the loss of biodiversity; rising temperature and desertification; collapsing agricultural yield and famine; rising sea levels and damaged coastal infrastructure; increased water scarcity; diseases; and human migration and conflicts as potential climate change threats in Africa. The discussion is divided into two parts: the environmental impacts of climate change, also known as the direct impacts of climate change, which include loss of biodiversity, rising temperature and desertification, rising sea levels and damaged coastal infrastructure, and increased water scarcity; and the socio economic impacts of climate change, also known as the indirect impacts of climate change, which include collapsing agricultural yield, diseases, famine, human migration and conflicts..

A brief discussion of climate change threats in Africa is presented to set the stage for the discussion on the need to address these challenges through normative frameworks both at International and African regional levels respectively,[81] in subsequent chapters. Since the adverse impacts of climate change threaten the achievement of sustainable development, the chapter also looks at the impact of climate change on sustainable development in Africa. The chapter ends with concluding remarks.

2.2 Climate change impacts on the environment

From 2001 the IPCC assessment found that climate change was already having discernible impacts on many different environmental systems.[82] Furthermore, the 4th IPCC assessment report evinced that many natural systems have been affected by regional climate change, particularly temperature increases.[83] In Africa, climate change has already resulted in the loss of biodiversity, rising temperature and desertification,

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81 See Rowlands IH 'Regional Approaches to Global Climate Change and Policy in Sub-Saharan Africa" in Low PS (ed) *Climate change and Africa* (Cambridge University Press 2005) 150-162.

82 Wold C, Hunter D and Powers M *Climate change and the law* (LexisNexis 2009) 16.

83 See IPCC: Working group II, summary for policymakers (2007 Fourth Assessment Review).

decreased agricultural yield, rising sea levels, damaged coastal infrastructure and water scarcity.[84]

2.2.1 Loss of biodiversity

Biodiversity is an important resource to the African people because it provides for the consumptive needs of the majority, who are poor and live in rural areas.[85] Mostly, biodiversity is for consumptive uses, as food, fibre, fuel, shelter, medicine and wildlife trade, and non-consumptive uses like ecosystem services and the economically important tourism industry. Due to the heavy dependence on natural resources in Africa, many communities are vulnerable to the loss of biodiversity that could result from climate change.

In 2001 the IPCC concluded that:

> Distributions, population sizes, density, and behaviour of wildlife have been, and will continue to be affected directly by changes in global or regional climate and indirectly through changes in vegetation. Climate change will lead to pole ward movement of the boundaries of freshwater fish distributions along with loss of habitat for cold – and cool water fishes and gain in habitat for warm – water fishes. Many species and populations are already at high risk, and are expected to be placed at greater risk by the synergy between climate change rendering portions of current habitat unsuitable for many species, and land – use change fragmenting habitats and raising obstacles to species migration. Without appropriate management, these pressure will cause some species currently classified as "critically endangered" to became extinct and the majority of those labelled "endangered or vulnerable" to become rarer, and thereby closer to extinction, in the 21st century.[86]

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84 See Hustings DA "Africa's climate observed: Perspectives on monitoring and management of floods, drought, and desertification" in Low PS (ed) Climate change and Africa (Cambridge University Press 2005) 50-59.

85 Desanker PV "Impact of climate change on Africa 1900-2100" (2003) *Climate Research* 17, 145-168. available at http://www.worldwildlife.org/climate/Publications/WWFBinaryitem4926.pdf (accessed on 10 February 2010)

86 IPCC Working group II Summary for policy makers 11 (Third assessment report 2001)

In Africa the impacts of climate change on biodiversity have become obvious. Climate change has already had significant impacts on a wide variety of animal behaviour, with scientists reporting changes in populations, migration patterns, and hibernation and reproduction as animals adapt to earlier spring temperatures. William Bradshaw and Dr. Christina Holzapfel of the Center for Ecology and Evolutionary Biology[87] have noted that climate change effects penetrate to the genetic level in a wide variety of organisms, with heritable genetic changes in populations such as birds, squirrels, and mosquitoes. Their long - term projection is that;

> Small animals with short lifecycles and large population sizes will probably adapt to longer growing seasons and be able to persist but populations of many large animals with longer life cycle and smaller population sizes may not be able to persist. While questions remain about the relative rates of environmental and evolutionary change it is clear that unless the long - term magnitude of rapid climate change is widely acknowledged and effective steps are taken to mitigate its effects, natural communities with which we are familiar will cease to exist.[88]

Although this is by no means the only impact on wildlife, extinctions from climate change are expected to be significant and widespread. The IPCC`s Fourth Assessment found that approximately 20 – 30 per cent of plant and animal species assessed so far are likely to be at an increased risk of extinction if increases in global average temperatures exceed 1.5–2.5 degrees Celsius.[89] This suggests that roughly a quarter of all biological diversity may go extinct at temperatures that may be hard to avoid. Several currently rare (and not so rare) species may become extinct if they are unable to evolve or adapt to rapidly changing conditions.

Africa covers about one-fifth of the global land and contains about one-fifth of all known species of plants, mammals and birds in the world and one-sixth of amphibians and

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87 Bradshaw & Holzapfel "Evolutionary response to rapid climate change" 2006 *SCIENCE*, 1477 – 1478.

88 Bradshaw & Holzapfel (2006) *SCIENCE* 1478.

89 IPCC Working group II Summary for policy makers (fourth assessment report 2007)

reptiles.[90] This suggests that such a loss of species will have dramatic impacts on key African economic sectors including agriculture, fisheries and tourism.[91]

Many examples of the impacts of climate change on biodiversity exist, reflecting the varied threats facing the planet's biodiversity.[92] For instance, the pastoralism practised across two-fifths of Africa's land mass is often compatible with sustainable resource management but will be hit particularly hard by desertification, prolonged droughts, and increased competition for resources.[93]

Climate change has caused shifts in the geographical distribution of species and ecosystems. However, the current rates of migration of species will have to be much higher than the rates during the post-glacial periods in order for species to adapt.[94] Species which are capable of adapting to climate shifts may survive, while others that cannot respond will suffer. Lovett[95] *et al* submit that as species struggle to adapt to changing conditions, climate change is expected to significantly alter African biodiversity. Research has shown that impacts induced by climate change may result not only in species range shifts but also in changes in tree productivity, adding further stress to forest ecosystems.[96] Other ecosystems, such as grasslands, mangrove

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90 See Siegfried W *Preservation of species in Southern African nature reserves: Concepts and conversation (*Oxford University Press1989).

91 African Wildlife Policy paper 2009 4.

92 Examples from outside Africa also exist. Between the 1980s AND 1990s almost two - thirds of the 110 known species of frogs in Central America became extinct. The direct cause of many of the extinctions appears to be a fungus now able to multiply due to warmer, cloudier nighttime weather. A 70 mile wide area off Oregon's coast has become a dead zone due to its low levels of Oxygen, which are linked to global warming. Bears in northern Spain have stopped hibernating. The U.S Geological Survey predicts that as Arctic sea ice loss increases in the coming years, polar bear populations could decline by two – thirds by 2050. Other recent studies have linked global warming to declines in such disparate species as pikas, blue crabs, penguins, gray whales, salmon, walruses, and ringed seals. Bird extinction rates are predicted to be as high as 38 per cent in Europe and 72 per cent in northeastern Australia, if global warming exceeds 2^0c above pre-industrial levels.

93 African Wildlife Policy paper (2009) 22.

94 Seitz J and Nyangena W "Economic impacts of climate change in the East African community" 2009 final report 19. See also, Malcolm JR et al "Estimated migration rates under scenarios of global climate change" 2002 *Journal of Biogeography* vol. 29 835-849.

95 Lovett et al "Climate change and ecology in Africa 2005 *African journal of ecology* vol. 43 279-281.

96 UNEP (2004) "The United Nations Environment Programme global environmental outlook report" 2004 *GEOYear book* 76.

swamps and coral reefs, the main coastal ecosystems in Africa, will probably be affected by climate change.[97] Climate change has also already affected the marine animals in Africa. For example, coral reefs in the Indian Ocean experienced massive bleaching in 1998 with over 50 per cent mortality in some regions.[98] Damage to the coral reef system has a strong nexus and far reaching implications for fisheries, food security, tourism and overall marine biodiversity.

Animal biodiversity on land in Africa is concentrated in the savannah and tropical forest. Thus the loss or alteration of terrestrial habitats by climate change has grave impacts on these species.[99] The alteration of the migration patterns of birds and large mammals another impact which in the long run may be beyond tolerance and may lead to the destruction of the migration patterns because of extreme climatic conditions.[100] Although the species involved have some capacity to alter their destinations, in the world on intense human land use the probability of finding sufficient areas of suitable habitat is limited.[101]

An assessment of the species sensitivity of African mammals was carried out in 141 National parks in sub-Saharan Africa by applying a simple IUCN Red List assessment of potential range loss.[102] The study demonstrates[103] that, assuming no migration of species, 10 – 15 per cent of the species are projected to fall within the IUCN Critically

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97 Parry *et al* (eds) Climate change 2007: "Impacts adaptation and vulnerability" *contribution of Working Group II to the fourth assessment report of the Intergovernmental Panel on Climate Change Cambridge University Press* 976.

98 Spadling, MD *World Atlas of coral reef* (University of California Press 2001).

99 Desanker (2003) *Climate Change Research* 5.

100 For example, about one-fifth of African bird species migrate on a seasonal basis within Africa and an additional one-tenth migrate annually between Africa and the rest of the world. A major large mammal migratory system is located in the Serengeti area of Tanzania and the Masai-Mara area of Kenya.

101 Desanker (2003) *Climate Change Research* 8.

102 Thuiller *et al* "Vulnerability of African mammals to anthropogenic climate change under conservative land transformation assumptions" 2006 *Glob. Change Biol* 12 424-440

103 By using two climate change scenarios (SRES A2 and B2 emissions scenarios with the HadCM3 GCM, for 2050 and 2080). See WWF2006.

Endangered or Extinct categories by 2050, increasing to 25 – 40 per cent of species by 2080.

In sum, it is hard to comprehend the breadth and gravity of the impacts on wildlife and natural ecosystems due to climate change, particularly when other ecological stresses are considered. As the IPCC`s Fourth Assessment puts it:

> the resilience of many ecosystems is likely to be exceeded this century by an unprecedented combination of climate change, associated disturbances (e.g., flooding, drought, wildfire, insects, ocean acidification) and other global change drivers (e.g. land – use change, pollution, over – exploitation of resources).[104]

Scientists agree, however, that observed changes in ecosystems cannot be attributed only to climate change. Additional factors, such as fire, invasive species and land use change interact and also produce change in several African locations.[105] Forest fires on Kilimanjaro, for instance, are already causing changes in the range of plant and animal species and may place additional pressure on ecosystem services.[106] Since 1976 the loss of cloud forests through fire has reduced the generation of fog water by approximately 25 per cent per year, which is the equivalent of the annual drinking water demand of 1 million people living on Kilimanjaro.[107]

Most of the floral biodiversity hot spots occur in winter rainfall regions and would be threatened by a shift in rainfall seasonality. For instance, a reduction in winter rainfall or

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104 IPCC working group II summary for policymakers 8 (fourth assessment report 2007)

105 Muriuki *et al* "Tse tse control and land use change in Lambwe valley, south western Kenya" 2006 *Agri. Ecosyst. Environ* 106.

106 Agrawala S (ed) *Bridge over troubled waters: Linking climate change and development* (2005 OECD Paris) 154.

107 Agrawala (2005) 37. See also Hemp A "Climate change-driven forest fires marginalize the impact of ice cap wasting on Kilimanjaro" 2005 *Glob Change Biol.* 11, 1013-1023 and IPCC Climate change 2007: "Impacts adaptation and vulnerability": Contribution of Working Group II to the fourth assessment report Parry, Canziani, Palutikof, van der Linden and Hansen (eds) (Cambridge University Press Cambridge UK 2007) 976.

an increase in summer rainfall would alter the fire regime that is critical to the life cycle of the plants.[108]

Moreover, as the climate changes, plants will naturally attempt to adapt by migrating, assuming that the landscape is too fragmented.[109] From a conservation management perspective, this indicates that creating avenues of migration for critical plant groups might be a useful hedge against destructive changes in climate.

Sustained climate change is expected to lead to substantial regional changes in the extent and type of forest cover, with some regions gaining and some losing forest productivity. For example, forests from central Europe to Siberia and to a lesser extent in North America have been growing more vigorously during the past two decades, presumably because warmer temperatures have lengthened the growing season by nearly three weeks. Long – term forest trends are hard to predict. Essentially, warmer temperatures will shift climate zones northward, with more southern species being able to tolerate more northern regions. Of course, this assumes that soil, precipitation, and other factors allow for the orderly spread of forest species.[110]

However, an orderly transition of forest species is doubtful as other forces are likely to limit forest productivity. In 2003, for example, forest fires in Europe, the United States, Australia and Canada accounted for more global emissions than any other source, and at least one study by the Scripps institute has suggested that warmer springs and summers may be increasing the number and severity of fires in the western United States. Even if GHG emissions stopped today, Eurasia, Eastern China, Canada, Central America, and Amazonia are estimated to be at a 30 to 60 per cent risk of forest loss. One recent study suggests that if left unchecked, increasing temperatures and declining

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108 Agrawala (2005) 38.

109 However, given that most of the land in Africa is inhabited by humans, not all species will be able to migrate.

110 Wold *et al Climate change and the law* (2009 LexisNexis) 23.

rainfall could transform Brazil's entire Amazon Rainforest into a grassy savannah by the end of century.[111]

In Africa, forests are highly sensitive to climate change.[112] Deciduous and semi-deciduous closed canopy forests, for instance, may be very sensitive to small decreases in the amount of precipitation that plants receive during the growing season. This example illustrates the idea that deciduous forests may be more sensitive than grassland or savannah to reduced precipitation.[113]
East-Africa's forests, for example, are under serious threat due to the population's high dependency on firewood and charcoal. It is estimated that these energy sources cover about 80 to 90 per cent of the residential energy needs of low-income households in the majority of sub-Saharan countries.[114]

Moreover, fire incidents also represent a huge threat to tropical forests in Africa.[115] It is estimated that about 70 per cent of detected forest fires occur in the tropics, with 50 per cent of them being in Africa. More than half of all forested areas were estimated to have burned in Africa in 2000.[116]

2.2.2 Rising temperature and desertification

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111 Astor M "Researchers: warming may change Amazon" *WASH POST December 2006.* Diseases may also spread to new areas. As a result of warmer average temperature in British Columbia for example, the mountain pine beetle extended its range north and has destroyed an area of soft – wood forest three times the size of Maryland killing 411 million cubic feet of trees – double the annual take by all the loggers in Canada. Alaska has also lost up to three million acres of old growth forest to the pine beetle.

112 See IPCC (2007) fourth assessment report.

113 Hély CL *et al* 'Sensitivity of African biomes to changes in the precipitation regime" *2006 Global Ecology and Biogeography* 15: 258-270.

114 IEA (International Energy Association) 'World Energy Outlook' 2002 *International Energy Agency* 533.

115 For example, in Kenya the following forests caught fire from the beginning of the dry season in February 2011; Busia, Meru, Mount Elgon, Mount Kenya, and Nairobi. See African Gorilla Safaris "Kenya forests service sounds the alarm over rising fire incidents" accessed on 21 June 2011 at www.africagorrilatour.news/p=199.

116 Dwyer S "Global spatial and temporal distribution of vegetation fire as determined from satellite observations" 2000 *International Journal of Remote Sensing* 21 1289-1302.

Deserts, covering nearly a fourth of the world's land mass and home to more than 500 million people, are expected to be among the hardest hit areas from climate change.[117] Temperatures in desert regions increased by 0.5^0 to 2^0c over the period 1976 – 2000, which was higher than the average global rise of 0.45 0c. In general, deserts are likely to become more extreme and bigger. With few exceptions they are projected to become hotter but not significantly wetter. Shifts in temperature and precipitation in temperate rangelands may result in altered growing seasons and boundary shifts between deserts, grasslands, and shrub lands. UNEP`s 2006 GLOBAL DESERTS OUTLOOK described the impact of climate change on deserts this way:

> Because deserts are driven more by climatic pulses than by average conditions even moderate changes in precipitation and temperature may create severe impacts by shifting the intensity and frequency of extreme periods, and subsequently creating catastrophic effects on plants, animals, and human livelihoods. Climate change is expected to affect less the total amount of available water, and more the overall water regime and the timing of water availability in deserts. Deserts and desert margin are particularly vulnerable to soil moisture deficits resulting from droughts, which have increased in severity in recent decades and are projected to become even more intense and frequent in the future. Conversely, flood events would infiltrate into soils and run – off and eroded sediment would concentrate in depressions, reinforcing the patchiness of desert ecosystems.[118]

In the past century there have been gradual heating and rising mean temperatures, meaning more warm spells and fewer cold days across the continent.[119] For instance, in Rwanda the temperature has increased by "0.7℃ to 0.9℃ over 50 years".[120] Moreover,

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117 See Hume *et al* "Global warming and African climatic change" in Low (ed) *Climate change and Africa* 29 and Kelly DJ "The case for social safeguards in a post 2012 agreement on REDD" 2010 6/5 Law environment and development journal 63-80.

118 UNEP: Global desert outlook 2006. See also Bradshaw and Holzapfel "Evolutionary response to rapid climate change" 312 *Science* 2006 1477-1478 and Wold *et al Climate change and the law* 25.

119 Wold *et al* (2009) 26.

120 FAO 2010 "Climate change implications for food security for food security and natural resources in Africa" 23.

an 18-month study of Sudan by the UN Environment Programme concludes that "Darfur holds grim lessons for other countries at risk". Rainfall has decreased by "up to 30% over 40 years" and the Sahara desert is "advancing by well over a mile every year". The desert in the northern Sudan has advanced southwards by "60 miles over the past 40 years".[121] The scale of climate change as recorded in Northern Darfur is "almost unprecedented, and its impacts are closely linked to conflict in the region".[122] The ecological strain and desertification has added significantly to the stress on traditional agricultural and pastoral livelihoods.[123] The continuation of rising temperatures and desertification across the continent is a serious threat for the security and the wellbeing of the African people.[124]

There is some uncertainty about how rain patterns will be affected, and it is predicted that typical rain patterns will be sporadic, with some areas receiving more rain while others receive less than what is normal. But for the most part average rainfall has been observed at a "decline in discharge of some watercourses in the range of 40-60% since early 1970s".[125] Many of the natural wetland in Africa have seen a significant reduction in surface area. For example, Lake Chad's surface area "shrunk from 20,000 km2 before 1970s, to 7,000 km2 after 1970s" and now only the southern part maintains water permanently.[126] Drought is an alarming situation for the continent of Africa when the current state of crisis is considered, as well as how many parts of Africa are drastically dependent on the land.[127]

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121 Borger J "Scorched environment' 12 available at www.guardian.co.uk/environment/2007 (accessed on 29 March 2011).

122 Nuttal N "Environmental degradation triggering tensions and conflicts in Sudan" 19 available at www. Unep.org.documents/2007 (accessed on 29 March 2011).

123 Nuttal (2011) 20.

124 Garcia D "The climate security divide: Bridging human and national security in Africa" Vol. 17 No. 3 *African Security Review* 2-17

125 Mwangi OG "Environmental change and human security in Lesotho: The role of the Lesotho Highlands water project in environmental degradation" 2008 Afri*can Security Review* Vol. 17 No. 3 58-71.

126 FAO (2010) 16.

127 See Agrawala (2005) "Bridge over troubled waters: Linking climate change and development" 45.

2.2.3 Decreased agricultural yield and famine

As already seen, the African continent depends on rain-fed agriculture, as a result of which it is highly vulnerable to changes in climate variability.[128] One-third of the income in Africa is generated by agriculture, whereas crop production and livestock husbandry account for about half of a typical household income.[129]

In Africa the direct impacts on biological systems are expected to include: increased altered hydrologic regimes; altered precipitation patterns; more rapid desertification; sea level rise yielding increased coastal erosion; and the dramatic disappearance of glaciers.[130] Indirect impacts will include: freshwater stress and scarcity; saline water movement inland; and coral bleaching. [131]

Climate change is projected to pose a major food security problem.[132] A United Nations study found that more than "60% of Africa's population depends directly on agriculture and natural resources."[133] Any sort of environmental variability can drastically reverse the progress that has been made towards eliminating poverty and food security. The main consequence of higher temperatures and more unpredictable weather is likely to be a reduction in crop yields, "6.9 per cent in the case of maize," an important staple,

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128 Many African economies are dependent on agriculture and the natural environment. Agriculture in Africa is important to produce the food people eat in addition to providing the primary source of livelihood for "two-thirds of the working population in sub-Saharan Africa". People are more likely to be sick and unable to go to work when there is a lack of food and increased rate of disease. Also, many different sectors of work would suffer from a decrease in natural resource productivity.

129 Desanker (2003) 4.

130 Hope KR "Climate change and poverty in Africa" 2009 16/6 *International Journal of Sustainable development and World Ecology* 451-561.

131 Hope (2009) *International Journal of Sustainable development and World Ecology* 455.

132 See Amechi E "Linking environmental protection and poverty reduction in Africa: An analysis of regional legal responses to environmental protection" 2010 *Law Environment and Development Journal* 112-129.

133 FAO (2007) 14.

and a heightened risk of food insecurity.[134] Greater drought collapses agricultural yields and in turn heightens the famine rate of the continent.[135]

In 2004, 1.1 billion people were undernourished in the world – 230 million of whom were in Africa.[136] Although global food production more than doubled between 1961 and 2003 the growth in agricultural production in Africa has not kept pace with population growth.[137] Food insecurity is of course a more complex problem than the simple availability of food. It is a function of poverty, poor governance and inequity within countries.[138] Nevertheless, within the last decade food shortages have affected 25 African countries and placed as many as 200 million people "on the verge of calamity".[139] Since 2001 consecutive droughts in southern Africa have led to serious food shortages. According to the UN's Office for the coordination of Humanitarian Assistance (OCHA), the 2002–2003 droughts alone left an estimated 14 million people in need of food aid.[140]

Food production on the continent is intimately tied to rainfall. African farmers have developed many different ways to cope with existing climate variability, but such innovations may not be to accommodate future climate pressures. According to a study quoted in WBGU (2007), climate change will result in an increase in dry lands and areas under water stress by 2080.[141] As a result of climate change this arid and semi – arid area could expand by five to eight per cent, amounting to a loss of productivity in another 50 to 90 million hectares of arable land.

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134 As above

135 Amadi A "Environmental governance in African development" 2009 *Harvard-Africa Policy Journal* 75-84

136 UNDP "Fighting climate change: Human solidarity in a divided world" *Human development report* 2007/2008 UNDP New York USA.

137 See World Bank "World development report: Agriculture for development" 2008 Washington D.C and World Bank and WWF .worldwide fund for nature: "Climate change impacts on East Africa" 2006 Gland Switzerland 87.

138 World Bank 2008.

139 FAO 2007.

140 FAO 2007.

141 See Balling RC "Interactions of desertification and climate change in Africa" in Low (ed) *Climate change and Africa* 41-49.

The IPCC notes that the causal contribution of climate change to food insecurity in Africa is still not fully understood, particularly vis-à-vis the role of other multiple stresses that enhance the impacts of droughts and floods and possible future climate change[142]

2.2.4 Rising sea levels and damaged coastal infrastructure

Rising sea levels constitute another climate change threat that poses problems for the the economies of populations living in coastal regions,[143] as well as endangering mangrove forests that act as natural water filters, as flood control, and as the habitat for a large amount of biodiversity in the area. There is the threat that the population of the coastline would be required to migrate away from the coast, which would lead to a large increase in the number of displaced people.[144] Rising sea levels not only causes hardship on the population but also on the economy. The cost of adaptation because of sea level rise "could amount to at least 5-10% of Gross Domestic Product," which does not account for the effects of the actual loss of production of the coastal economies.[145]

According to the IPCC 2007 report, global average rise in the sea level was 1.8 mm per year from 1961 to 2003.[146] The rate was faster from 1993 to 2003, at about 3.1 mm per year. Total sea level rise in the last century is estimated at a modest 0.17 meters. Moreover, under a range of future scenarios, the IPCC estimates a maximum 21st century sea level rise of no more than an additional 0.59 meters. This means that the IPCC estimates total sea level rise by the end of the century to be less than I meter.[147]

Since its release in November 2007, however, some experts have criticised the IPCC`s treatment of sea level rise for two reasons. First, data released since the IPCC report

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142 See IPCC 2007.
143 See Wold *et al* (2010) *Climate change and the law* 26.
144 Wold *et al* (2010) 26.
145 See Brown O and Crawford A "Climate change: A new threat to stability in West Africa?" Evidence from Ghana and Burkina Faso" 2010 *African security review* Vol. 17 No. 3 39-57.
146 IPCC 2007.
147 IPCC 2007.

suggests that the rate of sea level rise is greater than previously believed, and is commensurate with levels of up to 1.4 meters by the end of the century.[148]

Further, researchers studying the last period (about 120,000 years ago) when temperatures were as warm as they are predicted to be by the end of this century found that sea levels could rise as much as 64 inches, or more than five feet (about twice that predicted by the IPCC).[149] The new understanding of sea level rise suggests that even based on current temperature trends the IPCC`s Fourth Assessment report significantly underestimates the level of the rise and its impacts on coastal states and landowners.[150]

The second criticism of the IPCC report argues that it takes into account impacts on sea level rise only from temperature increases and linear predictions of ice melting.[151] The growing understanding of the pace and mechanism of polar ice melting has made some scientists re-assess the likelihood of even more significant sea – level rise due to the rapid disintegration of either the Greenland or West Antarctic ice sheets, or both. Indeed, the primary variable in accurately modelling future sea level rise, at least over the long term, is the stability of the ice sheets.[152] Moreover, significant melting of the polar ice sheets appears to be possible at lower temperatures than previously thought.[153]

2.2.4.1 Changing ocean ecology

Wold, Hunter and Powers submit that sea level rise gets a lot of attention because of its impacts on coastal settlements, but other significant impacts on the oceans arise from

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148 See Susan S *et al* "A closer look at the IPCC report," 319 *SCIENCE* Jan 25 2008 409–410.
149 See "Rising seas to beat predictions" BBC news ONLINE Dec 17 2007.
150 Wold *et al* (2010) 20.
151 Wold *et al* (2010) 27.
152 See Susan *et al* (2008) 410.
153 The U.S geological survey projects that a complete melting of the current Greenland ice sheet would raise sea levels by about 6.5 meters, and a melting of the West Antarctic ice sheet, or a release of the ice sheet from its mooring on the floor, would raise the sea level by 80 meters! See the U.S geological survey, sea level and climate (2000).

increased concentrations of atmospheric greenhouse gases. These include changes in the oceans' temperature, salinity, acidity and currents.[154]

Increased atmospheric concentrations of CO^2 and other greenhouse gases in the atmosphere are altering ocean chemistry in ways that affect corals and other marine organisms. The oceans have absorbed so much additional CO^2 in recent years (approximately 118 billion tons since 1800) that they are becoming measurably more acidic, which makes it more difficult for corals, plankton, and tiny marine snails to form their body parts. Worldwide, we may be approaching irreversible damage to coral reefs from mass coral bleaching, disease, and mortality. Some scientists now predict that all ocean corals may disappear in fifty years. Moreover, the productivity of plankton, krill and marine snails, which compose the base of the ocean food – chain, declines as the ocean acidifies. Reductions in their productivity will affect populations of everything from whales to salmon.[155]

Measuring average ocean temperature over time is complex, particularly given that the limited historical data that does exist was not gathered for the purpose of monitoring climate change.[156] Nonetheless, most recent studies conclude that the surface temperature of the oceans has increased over the past decades, which is consistent with climate modelling. The warming of the ocean contributes to sea level rise (through thermal expansion) and could significantly alter ocean ecology.[157]

Even slight changes in ocean temperature and salinity (due, for example, to the melting of ice) may alter ocean circulation and the vertical mixing in the ocean, which would

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154 *Wold et al (2010)* 21.

155 Kleypas AJ "Impacts of ocean acidification on coral reefs and other marine calcifiers" 2006 *National Center for Atmospheric Research.*

156 Catia M *et al* "Improved estimate of upper–ocean warming and multi–decade sea level rise" 2008 450 *NATURE* 1090–1093.

157 Shao G *et al* "Multidisciplinary perspectives on sustainable development" 2009 *International Journal of sustainable development and world ecology* Vol. 18 No. 3 187-189

threaten nutrient availability, biological productivity, and the functions of marine ecosystems.[158]

2.2.5 Water scarcity

Water resources are among the most vulnerable sectors to climate variability and change. This is because they are closely linked with climatic elements and so the issue of climate change has crucial implications for water resources and their management.[159]

According to the IPCC 4th assessment report, the African continent is the most vulnerable continent in the world. For instance, access to clean water is a major problem in many African countries.[160] One – third of all people in Africa live in drought – prone regions. One – quarter (about 200 million people) currently experience significant water stress.[161] Drought accounted for 31 per cent of all natural disasters in Africa between 1975 and 2002. Floods accounted for another 26 per cent.[162] Ethiopia, Eritrea

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158 A recent study has shown that the Walker circulation, which drives the trade winds and guides ocean behaviour across the tropical pacific, has weakened 3.5 per cent since the mid 1800s and may weaken another 10 per cent by 2100.These pacific currents supply important nutrient to ocean ecosystems across the equatorial pacific, a vital fishing region. Perhaps more important, though, is the fact that, the southern ocean is responsible for absorbing a significant amount of carbon (perhaps as much as 15 per cent of the earth's total carbon sink) - although significant uncertainty still exists about how the southern ocean is responding to global warming. Changes in winds and currents in the southern oceans could thus have a significant impact on the overall of warming.

159 For a detailed discussion about climate change implications on water resources in Africa, see Balgis OE and El Sanjak A "Global climate changes: Impacts on water resources and human security in Africa" in Leroy M *Environment and conflicts in Africa* (University of Peace, Addis Ababa 2009) 27-48.

160 The UN report points out that even though estimates of groundwater recharge under climate change cannot be made with any certainty, the increasing frequency of droughts is expected to encourage the further exploitation of available groundwater to boost production for farmers. The loss of glaciers, which support around 40 per cent of the world's irrigation, will eventually have an impact on the amount of surface water available for agriculture in key producing basins. Rising temperatures will lengthen the growing season in northern temperate zones, but reduce the length almost everywhere else. Increased rates of crop moisture loss will also result in reduced yields. See the information available at www.un.org/apps/news/story.asp?NewsID=38673 (accessed on 21 June 201).

161 IPCC 2007.

162 See Arnell NW "Climate change and global water resources: SRES emissions and socioeconomic scenarios" 2004 *Global Environmental Change* 14, 31-52; Arnell, NW "Global impacts of abrupt climate change: an initial assessment" 2006a *Working Paper* 99 *Tyndall*

and Somalia have suffered more deaths through drought over the last century – 600,000 by one estimate – than any other part of Africa. These countries have also experienced persistent conflict, internally and regionally. Drought and famine remain major underlying threats to security.[163]

In many places the problem of water is one of both quantity and quality. Increasingly the problem is not one simply of overuse but also of pollution. Agricultural runoff as well as industrial and household waste put lakes, rivers and coastal waters under stress, causing significant health and development problems.[164] Two – thirds of the rural population and one – quarter of the urban population in Africa lack access to safe drinking water.[165]

Even before factoring in climate change, many African countries are heading towards a crisis in terms of their economically usable, land – based freshwater resources as a result of population growth and the increased demand of agriculture for fresh water, which is predicted to rise by 30 per cent between 2005 and 2025.[166] The IPCC estimates that several countries in Africa, particularly in North Africa, will exceed the limits of their economically usable land-based water resources by 2025.[167]

Another example is the melting of the glaciers on Mt. Kilimanjaro as a result of global warming. An estimated 82 per cent of the amount of icecap of the mountain in 1912 has gone and, according to recent projections, if the recession continues at the present rate, most of the glaciers on Mt Kilimanjaro could disappear in the next 15 years[168] The snow

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Centre for Climate Change Research, University of East Anglia, Norwich, 37; and Ashton PJ 2002 "Avoiding conflicts over Africa's water resources" *Ambio,* 31, 236-242

163 Arnel 2006 *Tyndall Centre for Climate Change Research* 37

164 Openshaw K "Natural resources: Population growth and sustainable development in Africa" in Low (ed) *Climate change and Africa* (Cambridge University Press 2005) 113-121.

165 Simms A "Africa-un in smoke: The second report from the working group on climate change and development" 2005 *New Economics Foundation* 27.

166 Arnell (2006) *Tyndall Centre for Climate Change Research* 28.

167 Arnel (2006) 36.

168 Desanker (2003) 12.

and glaciers of Mt Kilimanjaro act as a water tower and several rivers are drying out in the warm season due to the loss of this frozen reservoir.[169]

Towns and farming communities around the mountain are bound to be affected, as the bulk of Tanzania's coffee and bananas is produced there. Other glaciers in Africa (such as Ruwenzori in Uganda, and Mt Kenya) are also under threat. The ice cap on Mt Kenya has shrunk by 40 per cent since 1963, and a number of seasonal rivers that used to flow from atop the mountain to the surrounding areas have since dried up.

Water levels have also decreased seriously in major lakes such as Lake Victoria, which lost over 50 per cent of its water between 1973 and 2002.[170] Several rivers are already drying out in summer, and major rivers such as the Nile, Niger and Zambezi face declining water levels.[171] As a result, the IPCC report projects that by 2020 between 75 and 250 million people in Africa will be exposed to increased water stress. Decreasing water levels are also expected to negatively affect the quality of the water.

In some other regions of Africa water interdependence is very high. For example, the 17 countries in West Africa share 25 transboundary rivers.[172] The Nile Basin extends over 10 countries and the Nubian sandstone aquifer is shared by four countries. This means that economic progress is intimately tied to water management elsewhere, a fact which is a good reason for cooperation but more frequently leads to tension or even conflict.

The principal impacts of climate change are shifts in precipitation patterns and a rise in temperature. Meanwhile, rising temperatures increase evaporation (from soil and rivers)

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169 Desanker (2003) 12.

170 Seitz J and Nyangena W "Economic impact of climate change in the East African community" 2009 *Global 21* available at www.global21.eacreport/dct (accessed on 12 April 2011).

171 Seitz and Nyangena (2009) 20.

172 Boko *et al* 'Africa' in Martin *et al* (eds) Climate change 2007: Impacts, adaptation, and vulnerability: working group II to the 4th assessment report of Intergovernmental Panel on Climate Change (Cambridge University Press 2007)441.

and evapo–transpiration (from plants) and reduce the amount of available water in lakes and rivers (known as "blue" water) and water in the soil (green water).[173]

There is widespread agreement that climate change and variability are likely to impose additional pressures on water availability and accessibility in Africa.[174] Using a range of scenarios, the IPCC estimates that by 2020 an additional 75 to 250 million people in Africa are likely to be at risk of increased water stress. By 2050 this population is projected to be between 350 and 600 million.[175]

But these averages hide a great deal of regional variation. Climate change will aggravate the water stress currently felt by some countries and may relieve it in others, while still other countries that are not currently water stressed will be at risk.[176] The increased variability of rainfall will also pose problems for the capture and storage of water between periods of heavy rainfall, for example. Ethiopia, Senegal and Guinea for instance, are able to store less than 10 per cent of their annual requirement.[177]

Africa needs to focus in the long term on increasing its adaptive capacity to climate variability and climate change. Recent studies under different initiatives in Africa, such as the AIACC, identified the establishment of a number of adaption measures in response to water stresses during droughts and high rainfall variability, including improved water exploitation methods (e.g. shallow wells), irrigation, water transfer, water harvesting, and water storage. In shared river basins, regional cooperation

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173 See Hastings DA "Africa's climate observed: perspectives on monitoring and management of floods, droughts and desertification" in Low (ed) *Climate change and Africa* 50 – 59 and Hope (2009) *International Journal of Sustainable development and world Ecology* 451 – 561.

174 IPCC 2007.

175 Water scarcity is also said to be one of the strong sources of interstate conflicts in Africa. See Mwangi OG "Environmental change and human security in Lesotho: The role of the Lesotho Highlands water project in environmental degradation 2008 *African Security Review* Vol. 17 No. 3 58 – 71 and Brown O and Crawford A "Climate change: A new threat to stability in West Africa? Evidence from Ghana and Burkina Faso", 2008 *African security review* Vol. 17 No. 3 39 – 59.

176 Mwangi (2008) *African Security Review* 60.

177 Brown and Crawford (2008) *Africa Security Review* 51.

protocols are needed to minimize both the adverse impacts and the potential for conflicts, particularly in arid and semi –arid regions.[178]

2.3 The socio-economic impacts of climate change

The degree and magnitude of the environmental and physical impacts from climate change explained above come into clearer focus when one analyses the socio-economic impacts that will inevitably follow. Consider, for example, the effects that increasing temperature could have on public health and/or that increasing water scarcity will have on human security[179] in Africa.[180] Although these effects are sometimes referred to as indirect effects, there is enough scientific evidence to show their connectedness with the environmental and physical impacts of climate change.

2.3.1 Diseases

Climate change has critical health implications. For example, changes in rainfall will affect the presence and absence of vector- and water-borne pathogens.[181] It can be expected that small changes in temperature and precipitation will boost the population of disease-carrying mosquitoes and result in increased malaria epidemics.[182]

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178 See Conway D "From headwater tributaries to International River: Observing and adapting to climate variability and change in the Nile basin" 2005 *Global Environmental Change* 16.

179 The term human security was first popularised by the UNDP in the early 1990. It emerged in the post-Cold War era as a way in which to link various humanitarian, economic, and social issues in order to alleviate human suffering and assure security. For a detailed discussion of the link between human security and climate change in Africa, see Garcia D "The climate change divide: Bridging human and national security in Africa" 2008 17/3 *African Security Review* 1-17.

180 Climate scientists argue that extreme weather events and resource shortages will affect millions of people in Africa, Australia, and Latin America by 2050. In Asia, warming will shrink freshwater resources from large river basins, which shrinkage could adversely affect 1 billion people. Parts of Africa could see rain-fed agricultural yields fall by much as 50 per cent from today's output, threatening to bring about food insecurity on top of water insecurity.

181 Africa Partnership Forum (2007) "Climate change and Africa" 17.

182 Desanker (2003) 8.

These problems will be exacerbated by the inability of many communities to cope with the increased outbreak of disease.[183] In many African urban settlements, population expansion has outpaced the capacity of municipal authorities to provide civic works for sanitation and other health delivery services.[184]

Patz *et al* submit in a report written in the Journal of the American Medical Association that "mosquito-borne diseases, including malaria, dengue, and viral encephalitides, are among those diseases most sensitive to climate". Climate change directly affects disease transmission because with warming temperatures there is a larger geological area that will serve as a habitable environment for mosquitoes and other disease-transmitting insects. Also the increase in sea surface temperatures can lead to a higher incidence of "water-borne infections and toxin-related illnesses, such as cholera and shellfish poisoning".[185]

Drought is not the only outcome of climate change to impact on agricultural production. The increased incidence of disease creates a vicious cycle. A healthy society is important to agricultural productivity and food security. Food production in Africa is often labour-intensive, and any variation in the health status of communities can result in lowering people's capacity to perform at work. The impacts of climate change on food production could lead to higher rates of famine and malnutrition, and hence to

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183 Reid and Salvano "Climate and disaster risk reduction in Africa" in Low PS (ed) *Climate Change and Africa* (Cambridge University Press 2005) 274

184 The health issue is strongly demonstrated by the El Nino effects. The 1997/98 El Nino in East Africa was accompanied by a rising incidence of malaria, fever and cholera. Temperature increases in the East African Highlands have enabled malaria vector mosquitoes to find new habitats in the highlands. This has resulted in malaria epidemics in the highlands communities of East Africa, where communities living at altitudes above 1100m are more vulnerable due to their lack of immunity. Predictions show that high altitude areas such as Nairobi may face new risks if the range in which mosquitoes can breed increases. See Wandiga *et al* "Vulnerability to climate induced highland malaria in East Africa" 2004 report of the assessment of impacts and adaptation to climate change in multiple regions and sectors (AIACC).

185 Patz JA et *al* "Climate change (communications arising): Regional warming and malaria resurgence" 2002 *NATURE* 420, 627-628.

susceptibility to other diseases, which in turn would affect agricultural production through a further loss of labour.[186]

The potential influence of climate change on malaria distribution has been widely discussed in recent years. The resurgence of malaria and its links to climate and/or other drivers of change, in particular in the highlands of East Africa, have recently been debated intensely.[187] Some studies indicate, for instance, that in areas with two rainy seasons – March to June (MAMJ) and September to November (SON) – more rain is falling in SON than previously in the northern sector of East Africa.[188] The SON season is relatively warm, and higher rainfall is likely to increase malaria transmission because of a reduction in the duration of larval development. The spread of malaria into new areas has also been documented.[189] For instance, the malaria vector Anopheles arabiensis has been observed in the central highlands of Kenya, where no malaria vectors had previously been recorded.

However, the recent resurgence of malaria in the highlands of East Africa may involve many other causal factors such as poor drug-treatment implementation, drug resistance, land-use change, and various socio-demographic factors including poverty.[190] Changes in the use of land, such as swamp reclamation for agricultural use and deforestation in the highlands of western Kenya, may contribute to changes in the

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186 Patz (2002) 627.

187 See Hay SI *et al* "Climate change and the resurgence of malaria in the East African Highlands" 2002 *NATURE*, 415, 905-909; and Pascual M *et al* "Malaria resurgence in the East African highlands: Temperature trends revisited" 2006 *National Academy of Science,* USA 103, 5829-5834.

188 Schreck *et al* "Variability of the recent climate of Eastern Africa" *2004 International Journal of Climatology*, 24/6, 681-701.

189 Chen HA *et al* "New records of Anopheles arabiensis breeding on the Mount Kenya Highlands indicate indigenous malaria transmission" 2006 5 *Malaria Journal* 17.

190 Githek, AK and Ndegwa W "Predicting malaria epidemics in Kenyan highlands using climate data: a tool for decision makers" 2001 *Global Change and Human Health* 2 54-63; Abeku TA *et al* 2002 "Effects of meteorological factors on epidemic malaria in Ethiopia: A statistical modeling approach based on theoretical reasoning" *Parasitology* 128 585-593 and Zhou G *et al* "Association between climate variability and malaria epidemics in the East African highlands" 2004 *National Academy Science* USA 101 2375-238.

micro-climate, thus creating suitable conditions for the survival of Anopheles gambiae larvae and leading to an increase in the risk of malaria infection.[191]

The average ambient temperature in the deforested areas of Kakamega in the western Kenyan highlands, for example, was 0.5°C higher than that of the forested area over a 10-months period.[192] Moreover, mosquito pupation rates and larva - to - pupa development are significantly faster in farmland habitats than in swamp and forest habitats. Many non-climatic factors such as the prevalence of HIV, the cross-border movement of people, agricultural activities, the emergence of resistance to insecticides, and the use of DDT for indoor residual spraying may alter or override the effects of climate.[193]

Future trend analyses estimate that by 2100 malaria distribution may have increased by 5 – 7 per cent, mainly through its extension to higher altitudes.[194] Previously malaria-free highland areas in Ethiopia, Kenya, Rwanda and Burundi may experience modest incursions of malaria by the 2050s, with conditions becoming highly suitable for transmission by the 2080s.[195] The highlands of eastern Africa are likely to become more suitable for malaria transmission.[196] Due to the lack of protective genetic modifications in the newly-affected populations, the frequency of epidemics is also likely to increase.

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191 Munga SN "Association between land cover and habitat productivity of malaria vectors in western Kenyan highlands" 2006 *American Journal of Tropical. Medicine* 74, 69-75.

192 Afrane Y "Effects of microclimatic changes caused by land use and land cover on duration of gonotrophic cycles of Anopheles gambiae in western Kenya highlands" 2005 Journal of Medical Entomology 42, 974-980.

193 Craig MH *et al* "Exploring thirty years of malaria case data in KwaZulu-Natal, South Africa Part II: The impact of non-climatic factors" 2004 *Trop. Med. Int. Health* 9, 1258-1266; Barnes K 2005 "Effect of artemetherlume fantrine policy and improved vector control on malaria burden in KwaZulu–Natal, South Africa" PLoS Med. 2 1123-1134; and Parry M et al (eds) "Climate change 2007: Impacts adaptation and vulnerability; contribution of working group II to the fourth assessment report of the Intergovernmental Panel on Climate Change" (2007 Cambridge University Press Cambridge UK) 976.

194 Tanser FC et *al* "Potential effect of climate change on malaria transmission in Africa" 2003 *Lancet* 362, 1792-1798

195 Parry M *et al* (eds) "Climate Change 2007: Impacts adaptation and vulnerability; contribution of working group II to the fourth assessment report of the Intergovernmental Panel on Climate Change" (2007 Cambridge University Press Cambridge UK) 976.

196 Hartmann JK *et al* "Climate suitability for stable malaria transmission in Zimbabwe under different climate change scenarios" 2002 3 *Global Change and Human Health* 42-54.

In areas of low to moderate transmission, such as the highlands of East Africa and other areas of seasonal transmission, severe malaria-associated disease is more common. An epidemic in Rwanda, for example, led to a four-fold increase in malaria admissions among pregnant women and a five-fold increase in maternal deaths due to malaria.[197]

With respect to climate variability and change, other diseases must be taken into account. Links between variations in climate and other diseases, such as cholera and meningitis, have also been observed. For instance, about 162 million people in Africa live in areas with a risk of meningitis.[198] Meningitis may also spread beyond the drier West and Central African parts to the Eastern African region. Yet maternal mortality emanating from malaria-associated anæmia is likely to rise with climate change and the consequent decrease in water quality. Areas with already poor sanitary conditions will become particularly vulnerable to disease as water scarcity intensifies.[199]

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197 Hammerich A "Unstable malaria transmission and maternal mortality: experiences from Rwanda" 2002 *Trop. Med. Int. Health* 7, 573-576.

198 Molesworth AM *et al* "Environmental risk and meningitis epidemics in Africa" 2003 *Emerg. Infect. Dis.* 9 1287-1293.

199 Wandiga *et al* "Vulnerability to climate-induced highland malaria in East Africa" 2004 report of the assessment of impacts and adaptation to climate change in multiple regions and sectors (AIACC).

2.3.2 Human migration

Sea level rise due to climate change will shift coastal boundaries backwards, forcing people to migrate and destroying infrastructure, fauna and flora.[200] The West coast of Africa is one of the most vulnerable areas.[201] The IPCC report projects that towards the end of the 21st century the rise in sea-level would affect low-lying coastal areas with large populations in Africa, further degrading mangroves and coral reefs and threatening human health, infrastructure, fisheries, biodiversity and tourism. It is worth noting that more than one quarter of Africa's population lives within 100 kilometres of the coast, and most of Africa's largest cities (such as Cairo, Lagos and Kinshasa, with more than 8 million inhabitants each) are along coasts vulnerable to sea level rise, coastal erosion, and extreme climate events.[202]

Semi-arid areas of the Sahel, the Kalahari and the Karoo are places which historically have supported nomadic societies that migrate in response to annual and seasonal rainfall variations.[203] Nomadic pastoral systems are generally able to adapt to fluctuating and very extreme climate but the coming scramble for natural resources by a growing population poses a great challenge to the nomadic system, since it requires a big space to accommodate the nomads' moving and shifting activities. This has led to conflicts over land and other resources in many parts of Africa and the result has been a widespread loss of human life and livestock and substantial change to the social system.[204]

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200 Wold *et al* (2009) *Climate change and the law* 27.

201 See UNEP "A gathering storm: The human cost of climate change in Africa" 2011 IRIN available at www.irinnews.org/report.aspx?reportId=81856 (accessed on 27 March 2011). In West Africa, the Sahara desert is growing by thousands of square kilometers a year and the search for water for people and their animals becomes even more desperate.

202 IPCC 2007. As Thomas Friedman so bluntly writes, the world in 2050 will be crowded and it will be hot. Even if industrial and emerging societies were to reduce their greenhouse gas emissions tomorrow and reach instant carbon neutrality, existing pollution has locked into the atmosphere at least some unavoidable warming. No matter what steps the global community takes to mitigate emissions, we will still be forced to adapt to a warmer climate.

203 Desanker (2003) 17.

204 Garcia (2008) *African Security Review* 16; and Kuwali (2008) *African Security Review* 21.

There are people who no longer can gain secure livelihoods in their homelands because of drought, soil erosion, desertification, deforestation and other environmental problems. In their desperation these people feel they have no alternative but to seek sanctuary elsewhere, however hazardous the attempt. The notion of human displacement occurring as a result of climate change is a comparatively recent concept vis-à-vis the more traditional ideas associated with refugees, such as persecution based on race, religion, nationality, or membership of a particular social or political group.

Nevertheless, the essence of the idea remains the same: the forced relocation of groups of individuals due to external (and largely unmanageable) factors.

The number of people affected by climate change is uncertain, since these "climate refugees" or "internally displaced persons" are not granted official refugee status under the United Nations Convention relating to the status of Refugees of 1951.[205] The United Nations therefore keeps no central tally.[206] Myers and Kent[207] argue that the consequences of climate change may result in the displacement of 200 million people. Current estimates by the IPCC indicate that by the end of this century the global sea-level will rise somewhere between 28 and 43 centimetres as a result of thermal expansion and the melting of glaciers and ice caps.[208] However, some scientists consider the IPCC to be taking an overly conservative approach in terms of calculating rising sea levels since, *inter alia*, the acceleration of some glaciers draining ice from Greenland and West Antarctica is not included in the IPCC sea – level projection because there is no basis within existing literature upon which to measure the increases.[209] Indeed, more recent scientific research is suggesting a rise in sea level by

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205 189 UNTS 150.

206 Teresina P "Climate refugees: the human toll of global warming" 2006 *Center for America Progress* 7.

207 Myers and Kent "Environmental exodus: An emergent crisis in the global arena (Climate Change Institute, Washington DC 1995).

208 IPCC (2007) 409.

209 Kerr R "A worrying trend of less ice, higher seas" 2006 *Science* 311 1698-1701.

as much as 40 to 150 centimetres within the same timeframe.[210] It is likely, therefore, that the sea-level will rise faster than the current estimates provided by the IPCC,, with small island states likely to suffer disproportionate consequences especially in terms of land loss.[211]

According to the international Federation of Red Cross (and Red Crescent) Societies, climate change disasters are currently a bigger cause of population displacement than war and persecution. Estimates of the number of climate refugees currently range from 25 to 50 million, compared with the official refugee population of 20.8 million.[212] Rising sea levels, increasing desertification, weather – induced flooding and other environmental changes will in all likelihood displace many more hundreds of millions of people.[213]

Africa is not only the continent most vulnerable to climate change, but also the continent most likely to experience the consequences first.[214] African countries bear minimal responsibility for climate change because they have little industry and produce relatively

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210 See Black R "Forecast for big sea-level rise" BBC news website available at http//www.news.bbc.co.uk/hi/sci/tech/7349236.stm (accessed on 15 May 2012).

211 See IPCC 2007a: 413 – 14.

212 By 2050 the world's population will be up to 9 billion people according to the United Nations—an increase of one-third. More than 90 per cent of this growth will take place in developing countries. Estimates also predict that 200 million people will be newly mobilized as climate migrants by 2050 due to the effects of global warming.

213 As early as 1993, Oxford Visiting Fellow Norman Myers estimated that by 2050 approximately 150 million "climate" refugees would be forced from their homes due to agricultural changes and sea level rise brought about by global warming. See Myers N "Environmental Refugees in Globally Warmed World" 1993 43 *BIOSCIENCE* 752.
Estimates have changed little in the last fifteen years as most researchers estimate that anywhere from 20 to 200 million refugees will be displaced by climate change – related impacts,. Nor, as suggested by the following note, are the impacts all in the future.

214 We can already see the effects that global warming has on some island nations. The inhabitants of the Carteret islands were the first climate refugees forced to relocate due to sea-level rise attributed to global warming. The Papua New Guinean government authorized a total evacuation of the islands in 2005. Estimates show that by 2015 Carteret will be largely submerged and entirely uninhabitable. Floods and other weather – related disasters have also caused nearly 10 million people to migrate from Bangladesh to India over the past two decades, creating immense population pressures. A one – mete rise in sea-level will, in turn, inundate three million hectares in Bangladesh, and displace another 15 – 20 million people.

small amounts of pollution;[215] but their population – often the poorest of the world's poor – is more likely to occupy dangerous locations such as coast lines, flood plains, steep slopes, and to do so in settlements of flimsy shanty homes.[216] The governments of these poor countries therefore carry the largest burden associated with human displacement induced by climate change, though they are already failing to meet the basic needs of their citizens and are ill – equipped to recover from disasters.[217]

Despite the scale of the problem, no one is really addressing the needs of these migrants.[218] Of course, not all climate refugees or IDPs are due to anthropogenic climate changes. Some of them would need to leave their homes because of "natural" weather events as well. But the long - term impacts of climate change are clearly going to increase the number of such refugees or IDPs and stretch the international community's ability to deal with them.[219]

2.3.3 Environmental security

An altered environment is only one of many human security, environmental, and developmental challenges facing Africa.[220] The discourse on the relationship between climate change and human security is an old debate dating back to the 1980s.[221] Currently a clear linkage is seen between environmental degradation and human security.[222] Environmental degradation leads to resource scarcity with resultant shifts in

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215 Gray and Gupta (2003) 77.

216 Koko W "Mapping the effects of climate change on human migration and displacement" 2009 CARES accessed at www.caresclimatechange.org on 22 June 2011.

217 Koko (2009) 24.

218 Werz M "Climate change on the move: Climate change will affect the world's security" 2009 *Center for American progress* accessed at www.americanprogress.org on 21 June 2011.

219 Werz (2009) *Center for American progress* 12.

220 Elasha BO and Sanjak A "Global climate change: Impacts on water resources and human security in Africa" in Leroy M (ed) *Environment and conflict in Africa: Reflections from Darfur* (University of Peace, Addis Ababa 2006) 28.

221 Karbo T "Methodological issues in climate change and conflict in research" in Leroy M (ed) *Environment and conflict in Africa: Reflections from Darfur* (University of Peace, Addis Ababa 2006) 73.

222 For a detailed discussion on the relationship see Homer D and Thomas F *Environment, scarcity and violence* (1999 Princeton University Press).

population and competition over scarce resources. This competition leads to conflict and hence insecurity. Homer suggests that rapid population growth and "environmental scarcities" - scarcities of renewable resources such as crop land, forests and fresh water - can contribute to widespread violence and social conflict, especially in developing countries.[223]

The effects of climate change are closely linked to the overall safety and welfare of people.[224] Human security involves putting people first and providing them with a sense of security in their homes, at their jobs and in their communities.[225] The concept encompasses the idea of liberty, specifically in its two pillars "freedom from fear" and "freedom from want".[226] Freedom from fear focuses on protecting people from violent conflicts and from the denial of their civil liberties. Freedom from want emphasises satisfying the basic needs of people, for food, shelter and clothing.[227]

Human security is founded on the fundamental principle that violence, poverty and inequality are inseparable in explaining and addressing the root problem of insecurity, whether social or economic.[228] Worsening climatic conditions, combined with other factors such as political and ethnic conflicts, the erosion of traditional safety nets and the deterioration of physical infrastructure and resources, force large numbers of people to migrate causing great insecurity.[229]

The impacts of climate change have magnified the underlying problems of governance, poverty and resource management in Africa and in turn, have put more pressure on the

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223 Homer D and Thomas F "Strategies for studying causation in complex ecological/political systems" 1996 5/2 *Journal of environment and development* 132-148.

224 Kumssa A and Jones JF "Climate change and human security in Africa" 2010 *International Journal of Sustainable Development and World Ecology* 453-461.

225 Clover J "Human-centered environmental security in Africa" 2010 14:2 *Africa Security Review* 103-106.

226 Kumssa and Jones (2010) *International Journal of Sustainable Development and World Ecology* 454.

227 Kumssa and Jones (2010) 454.

228 Podesta J and Ogden P "The security implications of climate change" 2008 31.1 *The Washington Quarterly* 115-138.

229 Podesta and Ogden (2008) *Washington Quarterly* 119.

people and systems.[230] There have been cases where climate variability has been shown to cause conflicts.[231] For instance, in Sudan there are already conflicts that have their roots in a transforming climate.[232] Environmental ruin and the significant effects of climate change threaten to trigger a succession of new conflicts across Africa unless more is done to contain the damaging consequences.[233] Increased drought is likely to drive people to where there is more rain and higher soil fertility. Farmers will have to migrate internally and a greater congestion of people in small fertile areas will probably "increase competition for valuable land and accelerate environmental degradation". It could also cause conflict with migrants trying to take over the land, and increase the number of refugees.[234]

Jeffrey Sachs,[235] a leading international advisor and Harvard graduate, wrote in an article that "recent years have shown that shifts in rainfall can bring down governments and even set off wars. The African Sahel, just south of the Sahara, provides a dramatic and poignant demonstration." Sachs, who is also a special advisor to UN Secretary General Ban Ki-Moon, says "the deadly carnage in Darfur, Sudan, for example, which is almost always discussed in political and military terms, has roots in an ecological crisis directly arising from climate shocks."[236] Climate change has the potential to drastically affect the entire globe and apparently the area of Darfur is already seeing the effects.

Conflict is taking a toll on the environment and in turn environmental degradation is one of the driving forces of displacement. The sheer number of displaced people and

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230 Mathew RA and Hammil A "Sustainable development and climate change" 2009 *International Affairs* 85/6 119 and Amali (2008-2009) *Harvard-Africa Policy Journal* 76.

231 Brown O *et al* (2007) *International Affairs* 83:6 141 and Scholtz W "The promotion of regional environmental security and Africa's common position on climate change" 2010 *African Human Rights Journal* 1-25.

232 See Tanner V "Politicising scarce resources: Thoughts on violence in Darfur since 1987" in Leroy M (ed) *Environment and conflicts in Africa: Reflections on Darfur* (University for Peace Addis Ababa 2006) 60-62.

233 Mwangi (2009) *African Security Review* 60.

234 Mwangi (2009) 60.

235 See Sachs JD "The End of Poverty: Economic possibilities for our time" 2005 *Penguin* 416

236 Biello (2009) 27

environmental refugees or IDPs is further undermining the environment.[237] It is a brutal continuous cycle of conflict destroying the environment while the aggravation of the environment is causing the worsening of conflict.[238]

Although many of these types of ecological issues are usually complex, it is imperative that they are dealt with and brought to the attention of institutions and governments. Climate threats may result in conflict over resources and land in Africa. There could be a succession of new conflicts across Africa because of the damage of caused by climate change, the vulnerability of the people, their weak socio-economic status, and the geography of the continent. It is in the best interest of the existing regional and sub-regional institutions to make the effects of climate change a top priority on their agenda.

Lake Chad presents an illustrative example of how climate change can caused conflicts. The major impact of climate change on the lake is the rapid decline of its surface area.[239] This lake lost over 50 per cent of its water between 1973 and 2002, yet it Lake is a vital source of fresh water and other resources that sustain human beings, livestock and wildlife communities in four African countries, namely Cameroon, Chad, Niger and Nigeria.[240] One of the adverse impacts of the loss of water has been the depletion of grazing land, which has in turn led to conflicts in the area.[241]

Water scarcity is another problem that can be politically very sensitive and is closely connected with other socio – economic and foreign policy issues.[242] The twin pressures

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237 Williams A "Turning the tide: Recognising climate change refugees in international law" 2008 *Law and Policy Journal* vol. 30 no. 4, 502-529.

238 Bromwich B "Analysing scarce resources as one dimension of conflict in Darfur" in Leroy M (ed) *Environment and conflict in Africa: Reflections from Darfur* (University of Peace, Addis Ababa 2006) 117.

239 See AMCEN "Addressing climate change challenges in Africa: A practical guide towards sustainable development" (2009) 49.

240 AMCEN (2009) 49.

241 AMCEN (2009) 50.

242 Wolf *et al* 2005 submit that the extent to which interstate conflict over water could occur in future is controversial. According to them, historical data would imply that water is not a regular cause of interstate conflict. Between 1945 and 1999 the importance of water led to twice as many instances of cooperation as conflicts between countries sharing the same

of demand growth and climate change may put existing international management mechanisms such as those governing the Nile under severe strain.[243] Gleditsch *et al* found that shared river basins increase the likelihood of conflict between neighbouring countries. The UN has identified nine river basins in Africa that are at risk of sparking tensions or conflict, among them the Kunene, Okavango, Zambezi, Limpopo, Orange and Nile.[244] Garcia argues that "the water equation in these countries is complicated by numerous inter - and intra – state conflicts.[245]

Other researchers point to water as a source of conflict and insecurity at community level, particularly in cases where no formal rules or agreements on the use of water resources has been concluded. Focusing on community-level conflict, Raleigh and Urdal found an empirical link between reduced freshwater resources and an increased likelihood of conflict.[246] There is also tension when water resources are diverted from agricultural areas to cities and the industries located there.[247]Likewise Nyong and Fiki argue that recurrent droughts, interacting with other social and economic factors, have resulted in conflicts among rural populations in the West African Sahel. These conflicts, they argue, have increased in their frequency, intensity and the magnitude of the destruction caused by them.[248]

Environmental insecurity presents an additional risk that threatens the sustainability of people's livelihoods in many parts of Africa.[249] Climate change is a grim reality that

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water. Indeed, there are some striking examples of cooperation over water between fundamentally hostile parties (e.g between Israel and Palestine and India and Pakistan)

243 Garcia (2009) *African Security Review* 15.

244 See IEA (International Energy Association) "World Energy Outlook" (2002) *International Energy Agency* 533.

245 Garcia (2009) *African Security Review* 17.

246 Raleigh C and Urdal H "Climate change environmental degradation and armed conflict" 2007 *Political Geography* 26(6) 274-694.

247 Brown and Crawford (2009) *African Security Review* 42.

248 Nyong A and Fiki C "Drought-related conflicts management and resolution in the west Africa Sahel" 2005 paper presented at International workshop on human security and climate change, Oslo.

249 Elasha and Sanjak (2006) "Global climate change: Impacts on water resources and human security in Africa" 37.

poses a major threat to sustainable development and will continue to affect human security, including ecological sustainability.[250] This exacerbates poverty and hampers African countries' ability to achieve the Millennium Development Goals.[251] It may also result in human rights abuses and intra - and interstate conflicts and wars. In this regard, climate change can no longer be considered an environmental concern only, as it also becomes a major threat to sustainable development and poverty reduction in Africa, resulting in human insecurity.[252]

Notwithstanding this obvious reality, the AU has not institutionalised climate change as a security issue. The AU needs to develop an environmental security policy in accordance with Articles 9(1)a and 13(1)b and e of the Constitutive Act of the AU.[253]

2.4 Sustainable development and Africa's vulnerability

Despite the fact that Africa is the continent least responsible for climate change,[254] it is acutely vulnerable to its adverse effects. These adverse effects are seen on economic growth, environmental sustainability and human security[255] and on the prospects for achieving the Millennium Development Goals (MDGs).[256]

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250 Podesta and Ogden (2008) *The Washington Quarterly* 117.

251 Kumssa and Jones 2010 *International Journal of Sustainable Development and World Ecology* 459.

252 Brown *et al* (2007) *International Affairs* 1147.

253 Wyk JA "The African Union's response to climate change and climate security" in Mwiturubani DA and Wyk JA eds *Climate change and natural resource conflicts in Africa* (2010 Institute of Security Studies) 18.

254 Africa contributes only about 3.8 per cent of total greenhouse gas emissions. See Gray and Gupta "The United Nations climate change regime and Africa" in Chaytor and Gray eds. *International environmental law and policy in Africa* (2003) 71.

255 Human security is defined as the "safety from chronic threats such as hunger, disease, and repression as well as protection from sudden and harmful disruptions in the patterns of daily life-whether in homes, in jobs or in communities".

256 Amechi E "Linking environmental protection and poverty reduction in Africa: An analysis of regional legal responses to environmental protection" 6/2 *Law Environment and Development Journal* 115

Economic development, and in particular poverty alleviation, is a major issue for many African countries which may consider climate change as a negligible problem compared to the huge challenge of hunger and poverty. But in recent years it has become evident that the threats emanating from climate change might hinder the achievement of development goals in developing countries.

The concept of sustainable development is relatively recent and came about as a reaction a perceived contradiction between the goals of environmentalism and development.[257] As defined by the Inter-Environment Institute, sustainable development involves "improving the quality of human life while living within the carrying capacity of supporting ecosystems."[258]

In Africa the development policies in the 1950s and 1960s sought to shift the mode of production from subsistence to commercial agriculture as part of a modernization process designed to ensure the integration of post-independence states into the new global economy[259] In the Sahel, a strip of desert than spans northern Africa from east to west, the consequences of this process have been severe. During this period, agriculture in the Sahel was mechanized, intensified and expanded, traditional risk-management strategies were disregarded, and pastoralists were marginalized.[260] Unfortunately all of this was executed during the wet season, and so, when a drought hit in the 1970s, agriculture and pastoralism collapsed. The resulting famine killed thousands of people and millions of animals. Additionally, the water in Africa's Lake Chad, which is located within the Sahel strip, has been disappearing for the last 60

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257 The environmental and development concerns are fundamentally related. See Tladi D *Sustainable development in the international law: An analysis of enviro-economic instruments* (Pretoria University Law Press 2007) 11.

258 See generally world commission on environment and development: Our common future 1987. The report defines sustainable development as the development that takes into account the present and future generation. This concept had its origin in the 1972 UN conference on human environment, in Stockholm, and it continues to evolve.

259 Brooks *et al* "Development futures in the context of climate change: Challenging the present and learning from the Past." 2009 *Development Policy Review* 27.6 741-65.

260 Amadi (2008-2009) *Harvard Africa Policy Journal* 75-84.

years.[261] This has yielded increasingly severe consequences for the 20 million people that depend on it for their sustenance and livelihoods, as it now consists of less than 20% of its original volume.[262] This tragedy, and the tragedy that has occurred in the Sahel, offer a stark illustration of the environmental consequences of unsustainable development.[263]

Although the development paradigm has undergone various evolutionary stages, it has consistently been based on the notion that human advancement (social and economic development) is directly proportional to a progressive distancing of human beings from the natural environment, and consequently a decline in the proportion of the world's population that is directly dependent on subsistence agriculture.[264] It is a philosophy that prioritizes modernization and capitalist production at the expense of all else — particularly natural resource resilience and more generally, environmental sustainability.[265] In most African countries there are significant numbers of people, especially the poor, who directly depend on natural resources and the environment for their subsistence livelihoods.[266]

Thus, one of the solutions could be for AU to ensure that member states' development agendas are integrated into climate negotiations in order to address the threats of climate change threats to sustainable development.[267] Moreover, AU member states should support these communities in their efforts to adapt to climate change. The AU

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261 BBC. "Slow death of Africa's lake Chad" accessed at http://news.bbc.co.uk/2/hi/4906692.stm on 20 may 2011.

262 BBC. "Slow death of Africa's lake Chad" accessed at http://news.bbc.co.uk/2/hi/4906692.stm on 20 may 2011

263 Mathew R A and Hammil A "Sustainable development and climate change" 2009 *International Affairs* 85/6 121

264 Brooks *et al* (2009) *Development Policy Review* 27.6 (2009): 747.

265 Tladi D (2007) *Sustainable development in International law: An analysis of key enviro-economic instruments* 241.

266 Bauer S and Scholz I "Adaptation to climate change in Southern Africa: New boundaries for sustainable development?" 2 (2010) *Climate and Development* 83-93.

267 See World Bank "World Bank deleopment report" 2010 *Development and climate change* available at http;//www.ameinfo.com/211919.htm/ (accessed on 15 October 2012).

should seek the cooperation of the international community and developed countries in this regard.

2.4.1 African vulnerability to the heightened impacts of climate change

The history of Africa's conquest and colonization has made it particularly vulnerable to the effects of climate change (as have poverty, corruption and conflict). Prior to colonialism, traditional African religious beliefs actually called for the protection of the environment. Most African cultures designated sacred forests, groves, rivers, animals, and special bathing and laundry places in streams and in rivers.[268] These practices are in accordance with the traditional African notion of the unity between humanity and nature — an idea in complete contradiction to the development paradigm discussed previously.[269] This, to a certain extent, accounts for the largely pristine condition of the environment in Africa prior to colonization and prior to the implementation of modernization processes. in addition, the level of importance placed on the protection of the environment and its natural resources was (and still is) a result of the reliance of Africans on subsistence agriculture.[270]

Unfortunately, however, with colonization came development, and with development came environmental degradation. Even now, in the post-independence period, African countries still experience significant environmental deterioration.[271] This is because the African continent is rich in natural resources and has therefore been prone to exploitation and imposed extractive industries — processes that are highly destructive to the environment. The environmental damage caused by the oil industry in Africa provides a particularly potent example. Africa holds an estimated 10 per cent of the

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268 Amechi (2010) *Law, Environment and Development Journal* 112-29.

269 Amechi (2010) 113.

270 Kempe HR "Climate change and poverty in Africa" 2009 *International Journal of Sustainable Development and World Ecology* 16/6 451-61.

271 Larry E and Mark T "UN report on threat to human progress from climate change" 2010 the guardian available at www.guardian.co.uk/global-development/2010 (accessed on 20 March 2011).

world's oil reserves, with Nigeria alone supplying 10 to 12 per cent of U.S. oil imports[272] As a result of the oil extraction, 1.5 million tons of oil have been spilled in the Niger Delta in the last 50 years, destroying mangrove vegetation and the nursery grounds for shellfish, marine fish, turtles and mammals, in addition to causing damage to coastal homes and farmland.[273] Unfortunately, however, the economic benefits gained by development initiatives such as the oil and diamond industries are far outweighed by the environmental, human and social costs as well as the bad governance. For example, profits from the Nigerian oil industry are diverted from sustainable development to neo-patrimonialism, patronage and foreign middle-men, and as a result, 2/3 of Nigerians remain in poverty and 40 per cent are without access to clean water.[274] Furthermore, the individuals who do benefit from the export economy are individuals who do not feel the direct consequences of environmental destruction. The poor, the individuals who do not benefit from the extractive industries, suffer greatly from the destruction of the environment because, as said before, they are the ones who remain dependent on natural resources for their livelihoods.[275] This offers yet another illustration of the relationship between environmental degradation, poverty, and unsustainable development.

As the severity of the environmental and social issues stemming from a lack of sustainable development has become increasingly apparent in Africa, the international legal regime has been enacted to encourage and enforce sustainable development initiatives.[276]

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272 Amadi (2008-2009) *Harvard Africa Policy Journal* 82.

273 Amechi (2010) *Law Environment and Development Journal* 115.

274 Amechi (2010) 115.

275 Kempe (2009) *International Journal of Sustainable Development and World Ecology* 459.

276 Refer to Chapter Three of this thesis. In 1992 the United Nations member states adopted the United Nations Framework Convention on Climate Change (UNFCC) and then, later, the Kyoto Protocol to the UNFCC, which was adopted in 1997. The Kyoto Protocol, unlike the original Convention, describes a binding commitment to reduce greenhouse gas emissions for 37 industrialized countries, rather than merely a statement encouraging them to do so.

2.5 Concluding remarks

This chapter has outlined and discussed various climate change threats and looked at how these threats impact on sustainable development in Africa. It has been observed that although Africa is the continent least responsible for climate change, it is particularly vulnerable to its adverse effects, including reduced agricultural production, worsening food security, the increased incidence of flooding and drought, spreading disease, and an increased risk of over-scarce land and water resources. The vulnerability is exacerbated by poor governance, corruption, lack of capacity, and lack of the requisite financial resources and technology.[277] Climate change threats have the potential to exacerbate competition and conflict over scarce natural resources.

Moreover, the threats of climate change will hinder the achievement of the millennium development goals[278] and development generally in African states.[279] This is because of the linkage between climate change threats and sustainable development. For example, climate change may lead to the intensification of the hydrological cycle and could therefore have major impacts on regional water sources.[280]

To cope with the threats of climate change in Africa they should not be looked at only as an environmental problem but also as a growing and cross-cutting threat to sustainable development and poverty reduction. African states and governments should strive to integrate climate change issues into their economic planning and management.
At the regional level, the Africa Union needs to facilitate the availability of the best adaptive mechanism to enable African communities to cope with the effects. The

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277 Scholtz (2010) *African Human Rights Law Journal* 2.

278 Scholtz (2010) *African Human Rights Law Journal* 2.

279 See also GA/RES/55/2 of 18 Sept. 2000. African states are also entitled to develop through pursuing developmental activities to boost their economy. Climate change threats may hinder this from happening because of the link that exists between climate change threats and economic development.

280 Laura HK "Linking climate change mitigation with sustainable economic development: A status report" 1998 *Widener Law Symposium Journal* 351.

adaptation mechanism may be enhanced by strengthening Africa's common position in the ongoing UNFCCC negotiations. African solidarity may be sought in this regard.

External actors, mostly developed countries and International organisations, can play a supportive role through financial mechanisms and technology transfers. However, the primary responsibility to react to climate change rests with African countries themselves. For instance, African States need to regulate agricultural input quality, ground water extraction and environmental protection.[281] They also need to regulate the logging industry, promote forest protection schemes, and limit human activities that increase deforestation.

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[281] Clover (2010) *African Security Review* 105.

CHAPTER 3: THE INTERNATIONAL CLIMATE CHANGE REGIME AND AFRICA

3.1	Introduction	61
3.2	The International climate change normative framework	62
3.2.1	The UN framework convention on climate change of 1992	63
3.2.2	The Kyoto protocol of 1997	66
3.2.3	Principles of the climate change regime	72
3.2.3.1	Sustainable development	73
3.2.3.2	The Common but differentiated responsibilities and respective capabilities principle	78
3.2.3.3	The precautionary principle	86
3.2.3.4	Equity	90
3.2.3.5	The special situation/vulnerability principle	95
3.2.4	UNFCCC conferences of the parties (COPs)	100
3.2.4.1	COP 15 and the Copenhagen accord	102
3.2.4.2	COP 16 and Cancun agreements	111
3.2.4.3	COP 17 and the Durban platform for enhanced action	113
3.2.4.4	COP 18 and the Doha climate gateway	114
3.2.4	Differential treatment	116
3.2.5	Post-2015 climate change agreements under the Durban platform	118
3.3	The climate change regime and Africa	120
3.3.1	Africa's vulnerability and the climate change regime	121
3.3.1.1	Technology transfer and CDM	123
3.4	Concluding remarks	126

3.1 Introduction

Climate change is global in nature and concerns all countries because its consequences respect no political boundaries.[282] It is considered to be a problem created by rich countries, but the burden[283] is disproportionately born by poor countries.[284] As said in Chapter Two, Africa is particularly vulnerable to the potential adverse impacts of climate change,[285] especially in relation to its major economic sectors. The vulnerability is exacerbated by existing developmental challenges such as endemic poverty, complex governance and institutional dimensions; limited access to capital; and complex natural and human disasters and conflicts.[286] Most African countries have institutional and policy frameworks that are in some regards insufficient to deal with environmental degradation and disaster management. The reason for this is said to be poor technology, education, information, skills, infrastructure, access to resources and management capabilities.[287]

The international climate change regime recognises Africa's vulnerability and requires developed state parties to assist vulnerable developing countries to address the consequences of climate change based on the vulnerability principle and the principles of equity and common but differentiated responsibilities and respective capabilities.

In order for African countries to effectively respond to the challenges of climate change and its impacts on sustainable development, they should cooperate amongst

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282 As the UNDP notes in its latest human development report which is devoted to climate change, millions of the poorest are already being forced to cope with the impacts of climate change.

283 In 2007 Mozambique was hard hit by a cyclone and the flooding of the Zambezi River. About 490,000 people were reported affected. Zambia, Zimbabwe, and Angola, through which the Zambezi River also flows, were badly affected by flooding. In 2008 - 2009 Malawi, Zambia, Mozambique, Zimbabwe and Tanzania experienced several floods.

284 Issues of equity are very much at the forefront of the discussion on climate change.

285 Gray & Gupta (2003) UN climate change regime and Africa 70.

286 Mwebaza R "Climate change and the international human rights framework in Africa" in Mwebaza R & Kotze LJ *Environmental governance and climate change in Africa* (2009 Monograph 167) 227

287 Mwebaza *Climate Change and the International human rights frameworks in Africa* 228.

themselves to strengthen their negotiating capacity in UNFCCC-Kyoto Conferences of Parties (COPs). In this context, the UN climate change legal regime and the AU normative environmental framework could be viable entry points.

This chapter examines the international climate change regime and assesses whether or not it is conducive to assisting Africa to address the impacts of climate change. It is concluded that the international climate change regime does not adequately resolve Africa's vulnerability to climate change because it does not really command funding, capacity building and the transfer of technology.[288] Furthermore, although Africa is the most vulnerable continent of the world, the AU has not played a meaningful and concerted role in this regard.[289]

3.2 The international climate change normative framework

Concern about climate change and calls for international action began in the 1970s and continued throughout the 1980s.[290] In 1990 the United Nations authorised an Intergovernmental Negotiating Committee on Climate Change to begin to discuss a global treaty.[291] The existing international, legal and institutional architecture on climate change consists primarily of the UN Framework Convention on the Climate Change (UNFCCC) of 1992 and the Kyoto Protocol to the UNFCCC. Briefly, the climate change regime was developed in three phases. The first phase was the establishment of the basic framework of governance in the UNFCCC in 1992. The second phase was the negotiations towards and finally the adoption of the Kyoto Protocol in 1997. The Kyoto Protocol sets forth quantitative emission reduction targets for developed (Annex I) countries through 2012. It also establishes market-based mechanisms for achieving

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288 Scholtz W "Equity as the basis for a future international climate change agreement: Between pragmatic panacea and idealistic impediment. The optimisation of the CBDR principle via realism" 2009 *The Comparative and International Law Journal of South Africa* 167.

289 Luppe WD and Barnard M "Climate change as common concern: Challenges and opportunities for lawmaking in SADC" 2012 *SADC Law Journal* 36-53.

290 Ong "International legal efforts to address human-induced global climate change" (2010) 450-451.

291 Hunter *et al* (2002) 589.

those targets. The third phase is post-2012 commitments which the COPs 15, 16, 17 and subsequent COPs are trying to address. This part discusses the three phases in relation to how they address climate change impacts in developing countries and particularly in Africa.

3.2.1 The UN framework convention on climate change of 1992

The UNFCCC was signed in 1992, being one of the environmental instruments negotiated at the United Nations Conference on Environment and Development (UNCED).[292] The UNFCCC consists of broad agreement for international cooperation to stabilise the concentration of greenhouse gas in the atmosphere.[293] It is essentially a framework agreement, requiring in weak legal language the industrialized countries (listed in Annex I), including the OECD countries, to reduce their greenhouse gas emission levels recorded in 1990 by the year 20000. As aptly put by Boyle, the UNFCCC is one of those treaties that are soft although they are formally binding.[294] The convention does not impose real obligations on parties since its provisions are vague and general.[295] However, the UNFCCC is potentially normative in that it contains principles[296] which have legal significance.[297]

The ultimate objective of the Convention and any related legal instruments that the Conference of Parties (the COP) may adopt is to achieve, in accordance with the

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292 Beckwith and Thornton (2004) *Environmental law* 10. UNCED dealt with linkages between the environment and development where the concept of sustainable development was explored in great detail.

293 Art 2 of the United Nations framework convention on climate change (UNFCCC) of 1992 31 ILM 849. See also Thanakvaro L, Tin P and Lydomi K "Clean development mechanism and least developed countries: Changing the rules for greater participation" (2009) *The Journal of Environment and Development* 18(4) 436-452.

294 Boyle AE "Some reflections on the relationship of treaties and soft law" 1999 *The International and Comparative Law Quarterly* No. 4, 901-913.

295 See for example Art 4(1) and (2).

296 See Art 3.

297 For instance the principle of sustainable development was relied on in the *Gabcikovo-Nagymaros* case. See Boyle AE and Freestone D eds International law and sustainable development (1999 Oxford) ch 2 and Boyle AE "*Gabcikovo-Nagymaros* case: A new wine in old bottles" 1997 8 *Yearbook of International Law* 13.Principles under Art 3 of UNFCCC are discussed in detail under part 3.3 of this chapter.

relevant provisions of the Convention, stabilisation of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system.[298] Such a level should be achieved within a timeframe sufficient to allow ecosystems to adapt naturally to climate change, to ensure that food production is not threatened, and to enable economic development to proceed in a sustainable manner.[299]

Article 3(1) of the UNFCCC recognises the vast disparity between developing countries and developed countries.[300] The article provides that industrialised countries are to take the lead in combating climate change.[301] Developed[302] countries listed in Annex I (i.e. excluding countries with economies in transition) also have the responsibility of transferring financial and technological resources to developing countries.[303] The convention stipulates that the eradication of poverty and economic growth are legitimate priorities for developing countries.[304] It therefore refers to parties' common but differentiated responsibilities, fleshing out the idea of developed countries' leadership and distinguishing between the respective commitments of developing and developed countries.[305] It provides that initially emission reductions be pursued only by the developed countries and countries with economies in transition that are listed in an Annex I to the convention.[306]

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298 Art 2 of UNFCCC.

299 Art 5 of UNFCCC. See also Hunter *et al (2002)* 568.

300 This principle is explored in detail under part 3.2.3.2 of this chapter.

301 Cullet P *Differentiated treatment in international environmental law and its contribution to the evolution of international law* (Ashgate Aldershot 2003) 21. The Common but Differentiated Responsibilities principle seeks to give effect to this reality. The CBDR principle is discussed in detail below.

302 The convention refers to "developed" countries as "industrialised" countries. See Art 3(1).

303 Art 9 of UNFCCC.

304 Arts 4.1(g) and (h), 5 and 9 of UNFCCC.

305 See Ramajani L "China and India on climate change and development: A stance that is legitimate but not sagacious?" in Bernstein, S, Brunnee J, Duff D and Green A eds *A globally integrated climate policy for Canada* (2007 University of Toronto Press) 110-112.

306 Arts 3.1 and 4.2(a) and (b) of UNFCCC.

The UNFCCC does not impose ambitious substantive commitments on parties but it rather contains principles and objectives to guide global climate policy and establishes institutions and processes for further treaty development, including through the adoption of protocols.[307] Moreover, the Convention provides for important principles including the Common but Differentiated Responsibilities and respective capabilities (CBDRRC),[308] the special/vulnerability principle,[309] the equity principle,[310] and sustainable development.[311]

Thus, the convention recognises that developing countries, particularly in Africa, are vulnerable to the consequences of climate change and calls upon parties to protect the climate system on the basis of equity and in accordance with common but differentiated responsibilities and respective capabilities.[312] This is, perhaps, the most important aspect of the convention in relation to Africa, because it tries to address the dimension of equity.[313] State parties are categorised into three groups: industrialised, countries with economies in transition, and developing countries. The convention imposes the obligation on developed countries to take action relating to funding, insurance and the transfer of technology in order to meet specific needs arising from the adverse effects of climate change on developing countries.[314] It also imposes an obligation on the developed countries to institute policies and measures on the mitigation of climate change and to communicate information on such policies and measures with the aim of returning, by 2000, individually or jointly, to the 1990 levels of anthropogenic emission of GHG.[315] Article 4(7) provides:

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307 Kulovesi K "Independent Reporting: The role of the Earth negotiating bulletin in climate change negotiations" 2011 *International Law-Making and Diplomacy Review* 31.

308 Art 3(1).

309 Art 3(2).

310 Art 3(5).

311 Art 3(4).

312 Art 3(1).

313 Arts 4(8) and (9).

314 Art 4(8).

315 Scholtz W "One environment, different countries: A discourse on common but differentiated responsibilities" 2008 *South African Yearbook of International Law* 123.

> The extent to which developing country parties will effectively implement their commitments under the convention will depend on the effective implementation by developed country parties of the commitments related to financial resources and transfer of technology.

The special/vulnerability principle and differential treatment under the CBDRRC principle in the Convention are very important for Africa because the principles are the basis for negotiations which take into account the special circumstances of the African continent.[316] The differential treatment is important in this regard in order to remedy the vast disparity between developed and developing countries, especially those that are most vulnerable to the adverse effects of climate change.[317]

However, the UNFCCC does not really impose commitments on the parties in accordance with the CBDRRC principle. For instance, the core articles dealing with policies and measures to reduce the emission of GHG are so cautiously and obscurely worded and so weak that it is uncertain that any real obligations are created.[318] Article 4(1), (2) and 7 are typical examples. Article 4(7) provides that commitments undertaken by developing countries are conditional on the performance of commitments by developed state parties to provide funding and the transfer of technology. It is almost impossible to enforce such provisions.[319] Thus, the Kyoto Protocol on the UNFCCC was formulated to address these shortfalls.

3.2.2 The Kyoto protocol of 1997

The Kyoto Protocol[320] was the outcome of a follow-up meeting on the UNFCCC in Kyoto, Japan.[321] The conference resulted into what is known as the "Berlin Mandate,"

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316 Scholtz 2008 *South African Yearbook of International Law* 124.

317 For a detailed and critical appraisal of differential treatment under the international climate change regime, see part 3.3 of this work.

318 Boyle 1999 *The International and Comparative Law Quarterly* 907.

319 Boyle 1999 *The International and Comparative Law Quarterly* 907.

320 Kyoto Protocol to the Framework Convention on climate change of 1998 ILM 37, 22. A major difference between the UNFCCC and the Kyoto Protocol is that while the Convention *encourages* industrialized countries to commit to stabilizing GHG emissions, the Protocol

which established a timetable for developed countries to negotiate the Kyoto protocol, with clear quantified emissions limitation and reduction objectives.[322] In 1997 the parties adopted the Kyoto Protocol and it came into force in 2005. The Protocol establishes the timetable for developed countries listed in Annex B to reduce their emissions.[323] Non - Annex I countries include countries that are particularly vulnerable to the adverse effects of climate change and the parties that are expected to bear a disproportionate or abnormal burden under the UNFCCC, mostly developing states.[324]

The Kyoto Protocol was adopted to build on general commitments set out in the UNFCCC.[325] The common but differentiated responsibilities principle as incorporated in the Protocol reflects the special needs and concerns of developing countries,[326] and the specific needs and special situations of Least Developed Countries (LDCs). Consequently, developing countries are not held to any emission-related targets, but are still to be given new and additional financial resources to meet the incremental costs of preparing their National Communications, and to help them adopt modern technologies.[327]

In addition to the national reporting requirements referred to above,[328] there are some general obligations for developing country parties under the climate change regime.

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commits them to doing so. The headline commitments of the Kyoto Protocol are the greenhouse emission reduction targets for the countries in Annex B, which are the developed countries, including countries with economies in transition (EITs) in Central and Eastern Europe and some countries form the Soviet Union. These commitments add up to a reduction of just over 5 per cent from their 1990 levels in a five-year period 2008-2012.

321 COP 3 to the UNFCCC, which took place between 1 and10 December 1997 in Kyoto, Japan.

322 Atapattu S "Climate change, equity and differentiated responsibilities: Does the present climate regime favour developing countries? (2009) *Human Development Report UNDP* 8.

323 Gray and Gupta (2003) "The UN Climate Change Regime and Africa" 67

324 Scholtz (2011) *South African Yearbook of International Law* 204.

325 Ong "International legal efforts to address human-induced global climate change" (2010) 458.

326 Brunee J "COPing with consent: Lawmaking under multilateral environmental agreements" (2002) 15 *Leiden Journal of International Law* 16 4-5.

327 Arcas RL "Kyoto Protocol: An adequate agreement?" 2001 *European Environmental Law Review* 288.

328 The Kyoto Protocol operates within the same objective and principles as the UNFCCC. Under the UNFCC, countries were to meet their targets through national measures. The Kyoto Protocol, on the other hand, offered then an additional way of meeting their objectives

Under Article 4 (1) (b), all parties are to formulate and implement national programmes including measures to mitigate climate change by addressing emissions and measures for adaptation to the effects of climate change. Parties are also required to integrate climate change considerations into relevant social, economic and environmental policies and actions as well as to deploy appropriate assessment of projects. The objectives of achieving sustainable development for non - Annex I countries, a requirement for all parties, is a cornerstone of the climate change regime. However, economic and social development and poverty eradication are considered to be the first and overriding priorities for developing countries.[329]

Like the UNFCCC, the Kyoto Protocol is designed to assist countries adapting to climate change, especially Least Developed Countries[330]. The protocol therefore facilitates the development and deployment of techniques that can help increase those countries' resilience to the impacts of climate change.[331] In the same spirit, an adaptation fund was established to finance projects and programmes in developing countries that are party to the Kyoto Protocol.[332] The fund is financed mainly by sharing the proceeds from Clean Development Mechanism (CDM) projects.[333]

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through mechanisms. These mechanisms include emissions trading, a clean development mechanism and joint implementation. The Protocol emphasizes the need for record keeping of the trades that have been carried out. The United Nations Climate Change Secretariat in Bonn, Germany keeps an international transaction log to verify transactions that are consistent with the rules of the Protocol.

328 Reporting is done by the parties by way of submitting annual emission inventories and national reports under the protocol at regular intervals. The compliance system ensures that the Party states are meeting their commitments and helps them meet their commitments if they have a problem in doing so.

329 See Arts 4 and 10.

330 Arts 2(b) and 2(3).

331 Faure M *et al Climate change and the Kyoto Protocol: The role of institutions and instruments to control global change* (Cambridge University Press London 2003) and *Envirocare* (2010) "Background of the Kyoto Protocol" 23.

332 Werksman J "The clean development mechanism: Unwrapping the Kyoto surprise" (1998) 7 *Review of European Community and International Law* 147.

333 Werksman (1998) *Review of European Community and International Law* 147.

The CDM[334] purports to assist Annex I Parties in complying with their targets, while also helping non-Annex I Parties to achieve the overall objective of the Climate Change Convention and Kyoto Protocol. Under the CDM, Annex I countries receive credits for either financially sponsoring, or by technology transfer providing for actual greenhouse gas emissions reduction projects in non-Annex I countries.[335] Thus, non-Annex I Parties will benefit from such projects even if they do not yield certified emissions reductions, because they must first be initiated by Annex I Parties. Annex I Parties on the other hand can use any certified emissions reduction to contribute to their own emissions reduction targets.[336]

The Kyoto Protocol is generally seen as an important first step towards a truly global emissions reduction regime that will stabilise greenhouse gas emissions, and provides the essential architecture for any future international agreement on climate change.[337]

However, the Protocol does not introduce any new commitments for developing countries, although Article 10 reaffirms existing commitments in the UNFCCC on the part of both Annex I and non- Annex I countries.[338] As such, it includes the obligation to periodically update national inventories of greenhouse gases to formulate and implement national programmes to reduce the effect of climate change, to cooperate in scientific and technical research, and to develop education and training programmes.[339]

Subsequent COPs to the UNFCCC, culminating in COP 6 (2000), which was held in The Hague, focused with little success on the exact measures to implement the emissions reduction targets noted above. For example, the Buenos Aires Plan of Action,

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334 Art 12. See also Cox G "The clean development mechanism as a vehicle for technology transfer and sustainable development: Myth or reality" (2010) Law, Environment and Development Journal 6/2 179-197.

335 Art 12(3) (b).

336 Cameron P "From principles to practice: The Kyoto Protocol" (2000) *Journal of Energy and Natural Resources Law* 18(1) 1-18.

337 Smith C "The Bali firewall and member states' future obligations within the climate change regime" (2010) *Law, Environment and Development Journal* 6/3 287.

338 Herrmann O "The Kyoto Protocol: Unfinished business" (1998) 40 *Environment* 3.

339 Davies PGG "Global warming and the Kyoto Protocol" *ICLQ* 47(2), 456.

adopted at COP 4 in late 1998, established a timetable for negotiations on several issues, including the international emissions trading scheme and the CDM for joint projects between industrialised countries and developing countries, to be completed in time for the Hague COP 6.[340] Despite this lengthy negotiating period, these issues were still not resolved by the time of COP 6. The Bonn COP 5, held in late 1999, was also able to agree on several issues, notably guidelines for improving information from the industrialised countries on the policies and measures they were introducing to achieve their emission targets.[341] However, no consensus could be achieved on how to review the actual commitments of the Parties towards implementing the Kyoto targets. The main source of controversy was the reluctance of the United States to implement its required target in the manner assumed by the other Parties although not exactly prescribed by the Protocol as such.[342] These State Parties hold that the Protocol requires the target to be met mainly by reducing emissions from identified sources. The US is attempting to exploit the ambiguity inherent in the Protocol over the exact *modus operandi* to be utilised for achieving its emissions reduction target. Thus, the US has proposed, so far unsuccessfully, that it should be allowed to meet its emissions target by instead funding forest planting to create so-called carbon dioxide (CO_2) sinks, thereby gaining emissions reduction units as credits to offset against its emissions target.[343] Initially the US proposed funding projects in developing countries under the joint implementation scheme provided in the UNFCCC[344] and elaborated in the Protocol.[345] Latterly the US proposed planting more trees in its own territory. Both these proposals were rejected by the other Parties, notably the European Community, in COP6.[346]

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340 See UNFCCC report of the conference of the parties to the United Nations Framework Convention on Climate Change on it fourth session, U.N Doc.UNFCCC/CP/1998/16/Add.1 (1998), Decision 8/CP.4.

341 Smith (2010) *Law, Environment and Development Journal* 6/3 290.

342 Ramajani L "From Bali and beyond: Killing Kyoto softly? (2008) *International and Comparative Law Quarterly* 910.

343 Cox (2010*) Law, Environment and Development Journal* 185.

344 Art 4.2(a).

345 Arts 3, 5, 6 and 7.

346 Ong "International legal efforts to address human-induced global climate change" (2010) 456.

On the other hand, it should be reiterated that, apart from the EU, many of the major industrialised countries and thus major contributors of greenhouse gases took some time before they ratified the Kyoto Protocol.[347] Moreover, the US is correct to point out that within the next couple of decades, the greenhouse gas emissions from several major rapidly industrializing albeit still developing countries like China,[348] India and South Africa will begin to catch up with those produced by the major industrialised countries. In fact it is now well documented that the total Chinese GHG emissions have now exceeded those of the US.[349] These rapidly industrialising countries do not as yet have any strict emissions reduction targets. Developing country commitments are currently restricted to certain general commitments under Article 10 of the Protocol and voluntary participation in the CDM. However, as their industries and cars produce more greenhouse gases, so will the pressure to require them to establish such targets and to strive to meet them. It is therefore important to conclude that their cooperation will become necessary in the near future to ensure the success of the climate change regime.[350]

Following the failure of COP 6 in The Hague, the Conference of Parties reconvened in Bonn in late July 2001. Despite dire predictions of failure engendered by the US non-ratification of the Kyoto Protocol, the Parties were nevertheless able to reach a broad agreement on the operational rules for the implementation of the Kyoto Protocol. In doing so, however, significant concessions were made to certain countries that are high carbon emitters, such as Japan, Russia, Canada and Australia, to secure their continued participation in the climate change regime. These concessions were necessary to ensure the Protocol could enter into force with not just 55 ratifying parties,

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347 Spense C *et al* "Great expectations: Understanding Bali and the climate change negotiations process" (2008) 17 *Review of European Community and International Law* 142.

348 Smith (2010) *Law, Environment and Development Journal* 6/3 290.

349 Ong (2010) 456.

350 Mitchel (2012) *The Journal of Environment and Development* 27.

but also at least 55 per cent of global carbon emissions as required by Article 25 (1) of the Protocol.[351]

The greatest challenges that the Kyoto Protocol is facing are that it tries to address a long-term problem with unfeasible short term measures[352] and big developing countries with economies in transition have no binding targets but have to set voluntary reduction targets and developing countries have no binding targets at all despite some of them being the leading emitters, such as China and India. This has led to big countries like the USA not ratifying the protocol[353] and Canada justifying its leaving of the protocol.[354]

3.2.3 Principles of the climate change regime

Article 3 of the UNFCCC states that in the actions to achieve the objective of the convention and to implement its provisions, the Parties shall be guided, *inter alia*, by those principles.[355] The guiding legal principles on the interpretation of both the convention and the Kyoto protocol that are discussed in this part are the Sustainable Development Principle;[356] the Common but Differentiated Responsibilities and Respective Capabilities Principle (hereinafter referred to as CBDRRC principle);[357] the Precautionary Principle;[358] Equity;[359] and the special/vulnerability principle.[360] A discussion of these guiding legal principles is performed in order to assess how

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351 Davies PGG "Global warming and the Kyoto Protocol" *International Comparative Law Quarterly* 47(2), 446-461.

352 Arcas (2001) *European Environmental Law Review* 288.

353 See the status of the ratification of the Kyoto Protocol at http://www.unfccc/kyoto_protocol/status_of_ratification/items/2613.php (accessed on 27 December 2012).

354 "Canada pulls out of Kyoto protocol" The Guardian 13 December 2011 available at http://www.guardian.co.uk/environment/2011/dec/13/canada-pulls-out-kyoto-protocol (accessed on 12 October 2012).

355 IPCC (2007) Fourth assessment report chapter 13.

356 Art 3(4) of the UNFCCC of 1992.

357 Art 3(1) of the UNFCCC of 1992.

358 Art 3(3) of the UNFCCC of 1992.

359 Art 3(1) of the UNFCCC of 1992.

360 Art 3 (2) of the UNFCCC of 1992. See also Smith (2010) *Law, Environment and Development Journal* 287 and Wiener J "Precaution" in Bodansky D, Brunee J and Hey E (eds) *The Oxford handbook on international environmental law* (Oxford University Press 2007) 597.

effectively they have been interpreted in an effort to curb climate change and its effects in Africa. It is argued that the legal principles relating to climate change should be considered by relating them with the doctrines and jurisprudence of general international law.[361] Boyle argues correctly that;

> The principles found in Article 3 of the 1992 UNFCCC are arguably the most important "law" in the whole agreement because they prescribe how the regime for regulating climate change is to be developed by the parties.[362]

The role of these principles[363] is to guide State Parties. They are relevant to the interpretation and the implementation of the international climate change regime.[364] The discussion of these principles in this work is therefore important because they guide Parties in determining how the regime addresses the vulnerability of poor countries, particularly those found in Africa. The principles aim to influence the decision-making of states.[365] They provide some predictability within which Parties are required to work towards the objective of the convention.[366]

3.2.3.1 Sustainable development

Sustainable development can be identified as an objective under Article 2 of the UNFCCC. The UNFCCC proclaims clearly that;

> the parties have to cooperate to promote a supportive and open growth and development in all parties, particularly developing country parties, thus enabling them better to address the problems of climate change". In this way, these provisions emphasize that development should proceed with both economic and ecological sustainability and purport to ensure the general interest of environmental protection.[367]

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361 Mwebaza (2009) "Climate change and the international human rights framework in Africa" 229. See also ILA (2012) 'The Principles relating to climate change' 14.
362 Boyle (1999) *International and Comparative Law Quarterly* 907-908.
363 Under Art 3 of the UNFCCC of 1992.
364 Boyle (1999) *International and Comparative Law Quarterly* 908.
365 Scholtz (2012) *South African yearbook of International Law* 206.
366 Boyle (1999) *International and Comparative Law Quarterly* 909
367 Art 2 of UNFCCC of 1992.

The UNFCCC provides that "the Parties have a right to, and should, promote sustainable development". The Kyoto Protocol also frequently refers to the concept of "sustainable development," namely in Article 2(1), which is on policies and measures, in Article 10, which concerns the implementation of the "commitments" under Article 4, and in Article 12 (2), on the CDM. One commentator notes that in the context of sustainable development, the CDM is most important to Kyoto Protocol instrument, whilst at present the use or expectation of the mechanism may not be necessarily fair.

Significantly, the Bali Action Plan, which outlines the negotiation framework for the adoption of a post-Kyoto agreement, continuously relies upon the use of the term "sustainable development" The notion of sustainable development is widely accepted in many other environmental treaties; yet, to enumerate every example would only be tedious.

In this context it is worthwhile to examine the legal status and implications of this concept more closely. As is often said, the concept of sustainable development may come close to a certain kind of "value" in a given society, and its possible status as a principle of international law is arguably questionable. Nevertheless, this abstract concept contains some important elements and has been identified as the central goal in many recent multilateral environmental agreements,[368] including the UNFCCC and its Kyoto protocol.

The principle of "sustainable development" originated in a realisation that the world's environment, its economies, and the ways in which it treats its human and animal inhabitants, are all interlinked.[369] The Brundtland report, which first gave prominence to the concept, illustrated the fact by reference to the famine in Africa in 1980s.[370]

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368 Maggio GF "Inter/intra generational equity: Current applications under international law for promoting the sustainable development in natural resources" 1997 *Buffalo Environmental Law Journal* 200.

369 French D "Developing states and international environmental law: The importance of differentiated responsibilities" 1/49 2000 *International and Comparative Law Quaterly* 35-60.

370 See WCED 1987.

Although its immediate cause was drought, its underlying causes were complex. They included political unrest, rapidly rising populations and debts owed by African countries. Inability to pay these debts forced African countries relying on agricultural commodities to over-use their fragile soils, turning good land into desert.[371] The concept has been defined in numerous ways, but the most widely accepted definition is that given in the Brundtland report. It defines sustainable development as the development that meets the needs of the present without compromising the ability of future generations to meet their own needs.[372] The concept recognizes that the protection of the environment cannot be considered in isolation from economic and development decisions.[373]

First, the concept of sustainable development plays an important role in integrating the environmental concerns into policies for economic and social development. Since the 1992 UN Conference on Environment and Development (UNCED), economic development, social development and environmental protection have been recognized as the three main pillars of sustainable development[374]. For example, the 1994 Agreement establishing the WTO replaced the original phrase in 1947 GATT with the following: "allowing for the optimal use of the world's resources in accordance with the objective of sustainable development".[375] The 1995 Copenhagen Declaration on Social Development also recognizes such integration.[376] In applying the concept, the climate change regime would need criteria for evaluating how to facilitate and promote the balanced integration of the economic, social and environmental dimensions of sustainable development. The necessity for such criteria has been identified in the case

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371 Sands (2012) *Principles of international environmental law* 321

372 Thornton and Beckwith (2004) *Environmental law* 14.

373 Sands suggests that there are four elements to the concept: the need to preserve natural resources for the benefit of future generations; the aim of exploiting natural resources in a manner which is sustainable or prudent; the equitable use of natural resources, implying that, in using resources, states must take account of the needs of other states; and finally, the need to ensure that environmental considerations are integrated into the economics of the development plans, and that development needs are taken are taken into account in applying environmental objectives.

374 See principle 4 of the Rio Declaration of 1992.

375 See the preamble to the Agreement Establishing the WTO of 1994.

376 Annex I to the Report of the World Summit for Social Development, UN Doc. A/CONF. 166/9 (19 April 1995) 6.

of CDM implementation. It should be noted that it is the host Party, and not the COP or CDM Executive board, that has the right to confirm whether or not the project activities are assisting in achieving its sustainable development.[377]

Second, sustainable development undoubtedly provides a conceptual framework of time-axes, which may be clear from its earliest definition seen in the WCED's Our Common Future of 1987. The ILA New Delhi Declaration of 2002 clarifies that the principle of common but differentiated responsibilities and the precautionary approach would be instrumental in pursuing the objective of sustainable development. The former, which is the ground for the quantified emission reduction commitments of developed country parties under the Kyoto protocol, reflects a result of historical global emissions of greenhouse gases, originated mostly from developed countries. The latter takes account of the risk of future threats of serious or irreversible damage.[378]

Third, the concept of sustainable development is concerned with the necessity of partnership and participation. On this point, principle 27 of the 1992 Rio Declaration stresses that;

> States and people shall cooperate in good faith and in a spirit of partnership in the fulfilment of the principles sustainable development.

Undoubtedly developed country Parties need to cooperate with developing country parties in order to facilitate their adequate adaptation to climate change.[379] These "partnership-obligations" are confirmed in other multilateral environmental treaties: yet,

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377 3/CMP.1 Modalities and procedures for a clean development mechanism, as defined in Article 12 of the Kyoto Protocol, para. 40, FCCC/KP/CMP/2005?8?Add.1 (30 March 2006)15.

378 For a detailed discussion of the role of sustainable development in international law see Tlad D *Sustainable development in international law: An analysis of key enviro-economic instruments* (Pretoria University Law Press 2007) 11-82.

379 See Article 4 (7) of the UNFCCC and Article 11 of Kyoto Protocol

as some commentators say, the legal status of such a north – south partnership is still controversial.[380]

Finally; in order to achieve sustainable development in the evolving new climate regime, more effective, democratic, and accountable international or multilateral institutions may be necessary. In the 2002 World Summit on Sustainable Development (WSSD) held in Johannesburg, the international community agreed that the implementation should involve all relevant actors through partnerships, especially between Governments of the Northern and South on the one hand, and between Governments and major groups on the other, to achieve the widely shared goals of sustainable development, and that such partnerships are important to pursuing sustainable development in a globalising world.[381]

Promoting sustainable development requires economic growth, social equity, and environmental sustainability.[382] The question regarding Africa is if African countries' economic growth is sufficient to enhance and promote sustainable development. The answer to this question is in the negative. Most African countries are poor and vulnerable to the impacts of climate change.[383] According to UNEP, the decline and degradation of natural resources such as land, soil, forests and biodiversity, and the unsustainable patterns of the use of resources are likely to be aggravated in Africa due to climate change.[384] Thus, African countries need assistance in terms of funding, capacity building, and technological development and transfer under the current climate change regime in order to be able to realise their sustainable development goals. This is important because environmental conservation for sustainability is not a luxury but a

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380 See Ramajani L "The changing fortunes of differential treatment in the evolution of international environmental law" (2010) 88:3 *International Affairs* 605-623.

381 Plan of Implementation of the world summit on sustainable development, para 8, Report of the World Summit on Sustainable Development, UN Doc. A/CONF.199/20 8.

382 Mitchel RB "Technology is not enough: Climate change, population, affluence and consumption" 21/1 2012 *Journal of Environment and Development* 24-27.

383 UNEP *Global environmental outlook* (Oxford University Press 1999) 116.

384 Mitchel 2012 *Journal of Environment and Development* 25.

necessity for long-term economic growth and development, particularly in poor countries.[385]

Given the importance of seeking to design a climate change legal regime so as to secure the general and widespread acceptance of sustainable development in the current climate change regime,[386] it is observed that it could be worthwhile to consider the role of "integration" in order to balance "environmental protection" and "economic development," including the needs of developing countries such as the "right to development";[387] the relationship between the concept of sustainable development and other principles on the climate change regime, especially the CBDR principle and the precautionary principle; and the concrete and effective measures for cooperation and participation between developed and developing countries, to implement sustainable development, including the CDM and/or other programmes.

3.2.3.2 The Common but differentiated responsibilities and respective capabilities principle

CBDR principle is recognised as one of the seven principles that relate to sustainable development.[388] The principle evolved from the notion of the "common heritage of

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385 Downing TE *et al* "Adaptation to climate change in Africa" 1997 Environmental Unit University of Oxford UK 1-26.

386 Voigt (2009) *Sustainable development as a principle of international law: Resolving conflicts between climate measures and WTO law* 113. The concept of sustainable development has been criticized for its vagueness. However, the concept has become popular because its vagueness has made it susceptible to favourable interpretations by parties with differing concerns. Thus, both developing and developed states are attracted to the concept because it promotes "development" whilst hard-line environmentalists can point to the fact that any development that takes place must be environmentally "sustainable".

387 For example, the NIECO may also be reflected in the principle of sustainable development. See French 2004 "The Role of the State and International Organizations in Reconciling Sustainable Development and Globalization" in Schrijver and Weiss eds. 2004. *International Law and Sustainable Development: Principles and Practice* 59.

388 New Delhi Declaration of Principles of International Law relating to sustainable development 2002 UN Doc A/57/329 par 3. See also Scholtz 2008 *South African Yearbook of International Law* 119.

mankind" and is the manifestation of general principles of equity in international law.[389] The principle includes two fundamental elements: first the common responsibility of states for the protection of the environment or part of it,[390] and second the need to take into account the different circumstances such as States' contribution to the evolution of a particular environmental problem and their ability to prevent, reduce, or control the threat.[391]

The CBDR principle appears in a number of treaties and declarations.[392] For instance, the Vienna convention on the protection of the ozone layer of 1987[393] refers to the need to take into account "the circumstances and particular requirements of developing countries."[394] The Montreal Protocol also contains an elaborate set of provisions giving effect to that principle,[395] acknowledging that "special provision is required to meet the needs of developing countries for [controlled] substances." The Montreal Protocol adopted, for the first time in international environmental law history, three mechanisms that take into account the special situation of developing countries in formulating their obligations: a different phase-out period of 10 years to phase out controlled substances;[396] the establishment of a fund to help developing countries meet their obligations under the Protocol;[397] and the transfer of technology, including facilitating access to environmentally safe alternative substances and technology.[398]

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389 Scholtz 2008 *South African Yearbook of International Law* 120 and CISDL "The principle of common but differentiated responsibilities: Origins and scope" 2002 A CISDL Legal Brief available at http://cisdl.org/public/docs/news/brief_common.pdf (accessed on 20 July 2013).

390 Scholtz 2008 *SAYIL* 120.

391 CISDL (2002) and Sands (2004) Principles of international environmental law 285.

392 Principle 7 of Rio Declaration of 1992 and art 3(1) of the UNFCCC of 1992.

393 1513 UNTS 293, signed March 22, 1985, entered into force, September 22, 1988.

394 See the preamble to the Ozone Layer Convention of 1987.

395 Art 5 which is entitled "Special Situation of Developing Countries".

396 Arts 2, 3, 4 and 4A.

397 Art 10.

398 Art 10A. For a detailed discussion on how far the Montreal Protocol has been effective in addressing developing countries' needs, see Leal-Arcas R "Climate change negotiations: Analysis" 4/1 2011 *European Journal of Legal Studies* 8-9.

However, the principle is also stipulated in Principle 7 of the Rio Declaration of 1992. Principle 7 reads:

> States shall co- operate in a spirit of global partnership to conserve, protect and restore the health and integrity of the Earth's ecosystem. In view of the different contributions to global environmental degradation, states have common but differentiated responsibilities. The developed countries acknowledge the responsibility that bears in the international pursuit of sustainable development in view of the pressures their societies place on the global environment and of the technologies and financial resources they command.[399]

Furthermore, Article 3 of the UNFCCC, which incorporated principle 7 of the Rio Declaration, states:

> The Parties should protect the climate system for the benefit of present and future generations of humankind, on the basis of equity and in accordance with their common but differentiated responsibilities and respective capabilities. Accordingly, developed country Parties should take the lead in combating climate change and the adverse effects thereof.[400]

Despite the rather general and vague language adopted in Principle 7 of the Rio Declaration, there is little doubt that it has broken new ground in international environmental law.[401] While it is open to debate whether it is a legal principle or a guiding principle,[402] it could lead to significant legal implications as more and more environmental treaties adopt differential obligations for states,"[403]

The UNFCCC[404] was the first binding instrument to specifically endorse the CBDR principle.[405] As we have seen, it is mentioned in both the preamble and in Article 3

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399 Principle 7 Rio Declaration on environment and Development, 1992, available at: http://www.unep.org/Documents.Multilingual/Default.asp?DocumentID=78&ArticleID=1163.

400 Art 3.1 of the UNFCCC of 1992.

401 The Rio Declaration on Environment and Development was the first international instrument to specifically incorporate the CBDR principle.

402 Ramajani (2009) "From Berlin to Bali and Beyond" 1.

403 Hunter D, Salzman J and Zaelke D *International environmental law and policy* 2 ed (2002 Foundation Press New York) 387.

404 1771 UNTS 107, signed May 9, 1992, entered into force: March 21, 1994, available at: http://www.unfccc.de/ (accessed on 21 March 2010).

under "principles." According to Article 3 the parties to the Convention shall be guided by several principles including the CBDR principle. The Convention also requires the special needs of developing countries to be given full consideration:

> The specific needs and special circumstances of developing country Parties, especially those that are particularly vulnerable to the adverse effects of climate change, and of those Parties, especially developing country Parties, that would have to bear a disproportionate or abnormal burden under the Convention, should be given full consideration.[406]

The Kyoto Protocol,[407] which embodies substantive obligations in relation to climate change, contains no obligations for developing country parties apart from the general obligations or commitments embodied in the UNFCCC. Only "Annex I countries" (i.e. developed countries) have specific obligations for emission reduction.[408] Taking 1990 as the base year, these countries have to reduce their greenhouse gas emissions (gases listed in Annex A) by at least 5% below their 1990 levels.[409] The Protocol identifies several mechanisms by which the parties can achieve their obligations: joint implementation, the bubble, emission trading and the clean development mechanism (CDM).[410]

Thus, unlike the Montreal Protocol, the Kyoto Protocol, although specifically embodying the principle, does not actually contain any obligations for emission reductions for developing countries. As should have been expected, this led to much controversy. Indeed, it was one of the reasons given by the US government when it announced its decision to pull out of the Kyoto regime.[411]

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405 Birnie, Boyle and Ridgwell argue that it is in the Kyoto Protocol that the concept of "Common but Differentiated Responsibility" is for the first time the explicit basis for the different commitments of developed and developing state Parties. Similar comments can also be found in Stone CD (2004) "Common but differentiated responsibilities in international Law" 276.

406 See Art 3.2 of the UNFCCC

407 FCCC/CP/1997/7/Add.1, signed December 11, 1997, entered into force February 16, 2005.

408 Arti 2 Kyoto Protocol 1997

409 Arti 3 Kyoto Protocol. This target can be achieved either individually or jointly.

410 See Arts 6 and 12 of the Kyoto Protocol 1997.

411 See Hunter *et al* (2002) 10.

In line with these arguments, two questions may be raised. Firstly, does the term "responsibility" signify a legal obligation under both the convention and the protocol? The principle is contained in the UNFCCC but the term "responsibility" has not been defined. The CBDR principle is mentioned in the UNFCCC as also in the Rio Declaration on the Environment and Development. According to the Japan Committee on Climate Change[412], the term "responsibility" certainly does not have the legal consequences of international wrongful acts, for under general international law it is only a primary obligation incumbent upon a state - i.e. an international wrongful act - that generates a secondary obligation of responsibility to make reparation.[413] It is further argued that the term "responsibility" should be used to signify that something is imposed on the states concerned. The term "responsibility" as used in the documents above simply signifies a "duty" to be fulfilled by the states concerned. The implication is that a duty is not a legal obligation in the strict sense but is merely a moral requirement, while the concept of "obligation" signifies a legally binding imposition. Other commentaries have stated that the concept of responsibility in the CBDR, as used in the UNFCCC, while not showing a clear distinction, does not generate concrete obligations for States but serves as a guiding principle for the articulation of the rules of the Climate Change regime.[414]

Secondly, does this mean that the climate regime, through CBDR principle favour developing countries? On the face of it, the answer may be yes. Indeed the reason underlying the CBDR principle is to "favour" one group over another taking into account

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412 ILA (2012) "*Legal principles relating to Climate Change*" 13.

413 There are divergent theories on the grounds of differentiation that apply to the CBDR. These include the "contribution theory," which states that industries generating the greatest share of historical and current global emissions of greenhouse gasses are culpable for the global environmental degradation and therefore should bear the cost of cleaning up. Another theory is the "entitlement theory", which states that developing countries are entitled to fewer and less stringent commitments and financial / technical assistance in the light of their history of colonialism and exploitation, and also as a necessity of development. The "capacities theory" on the other hand contends that developed countries that have the resources and capabilities to take responsive measures should lead in the protection of the environment.

414 Smith (2010) 6/3 *Law, Environment and Development Journal* 290.

certain disparities that exist in international society. If that were the case, is it equitable that developing countries were not given any obligations at all? In this context, it is useful to recall the wording in the Rio declaration: it refers to the common obligation of states to protect the environment. This obligation is common to all states, whether they are developing, developed or have economies in transition. Moreover, Principle 7 starts with the general obligation of states *to cooperate in a* spirit of global partnership...[415] This general obligation may be qualified by differentiated responsibilities based on different contributions states make to global environmental problems. This does not, however, mean that the general obligation to cooperate to conserve and protect the environment becomes nullified as a result of differential obligations. In the light of this, the one sided nature of obligations in the Kyoto Protocol becomes problematic as it does not contain any differentiated responsibilities for developing countries – on the contrary, it contains no obligations for developing countries for the commitment period. Of course, the counter- argument can be made that the Kyoto Protocol applies only for the commitment period and, therefore, it was not necessary to adopt obligations for developing countries as their contribution to global greenhouse gas emission was negligible.[416]

This argument would have been viable if all developing countries were made equal. Countries with huge populations and fast industrialising economies such as India, China and Brazil are anything but equal to other developing countries and it may become necessary to differentiate even within developing countries. China has become the world's largest carbon dioxide emitter, surpassing the United States for the first time in 2007.[417] India's emissions are increasing as well. Thus, it is no longer possible to exclude these countries from the future climate change regime.[418]

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415 Emphasis added.

416 For detailed and critical discussion on the principle see Honkonen T "The principle of common but differentiated responsibilites in post 2012 climate change negotiations" 2009 18 Review of European Community and International Environmental Law 257-267.

417 Rosenthal "China increases lead as biggest carbon dioxide emitter" the New *York Times*, June 14 2008.

418 Cox (2010) Law, *Environment and Development Journal* 190.

There may be another explanation of why developing countries were not given any binding obligations, which makes it easier to reconcile the omission with the ozone regime. Unlike the ozone regime, the climate change regime is based on commitment periods, and developing countries do not have emission reduction commitments in relation to this particular commitment period.[419] It is very likely that in the second commitment period developing countries will have emission reduction obligations like those of developed countries. It seems logical that their emission reduction obligations should be commensurate with the emissions for other countries.

While both the climate change regime and the ozone regime purport to apply the CBDR principle, the two regimes approach differential treatment differently.[420] While some developing countries such as Argentina have voluntarily adopted Kyoto commitments, developing countries as a whole do not have any binding obligations under Kyoto. It is therefore commendable that developing countries expressed their willingness (albeit rather cautiously) for the first time to be subjected to binding commitments under the post-2012 regime. Thus, the Bali Action plan refers to the need for "nuanced national/international action on mitigation of climate change, including, *inter alia,* consideration of:

> Nationally appropriate mitigation actions by developing country Parties in the context of sustainable development, supported and enabled by technology, financing and capacity- building, in a measurable, reportable and verifiable manner.[421]

Although the wording is rather vague and cautious, this is a significant development from their pre - Kyoto position, where they took the view that climate change was a phenomenon brought into being by rich countries and it would be unfair to get developing countries to pay for mitigation when they had other pressing problems to

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419 French (2000) *International and Comparative Law Quarterly* 39.

420 Leal-Arcas (2011) *European Journal of Legal Studies* 9.

421 Bali Action Plan, advanced unedited version, Decision/ CP.13, (2007) available at: http:/unfccc.int/files/meeting/cop_13/application/pdf/cpbali_action. pdf (accessed 12 March 2010).

deal with, such as poverty.[422] This is reflected in the UNFCCC as well. The Preamble affirms that

> responses to climate change should be coordinated with social and economic development in an integrated manner with a view to avoiding adverse impact on the latter, taking into full account the legitimate priority needs of developing countries for *the* achievement of sustained economic growth and the eradication of poverty.[423]

The Convention further calls upon parties to integrate policies and measures to protect the climate with national development programmes "taking into account that economic development is essential for adopting measures to address climate change."[424]
However, it should be stressed that the whole debate on climate change should be placed within the context of sustainable development and the above provision is significant in this regard. Sustainable development requires us to integrate environmental protection into the development process, not to consider it *ex - post facto* or in isolation.[425] It also requires us to integrate issues of equity into the process as well as procedural rights such as access to information, participation and access to remedies. Sustainable development has come a long way from its articulation by the World Commission on Environment and Development in 1987.[426] From a vague and slippery concept,[427] sustainable development has developed into something more than a mere concept with both substantive and procedural elements, some of which now have legal connotations.[428] In this light, it would be difficult for developing countries to raise their age-old argument that economic development must come first and environmental protection later. The international community has hopefully learned from this mistake not once but many times over.

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422 Hunter *et al* (2002) 10.
423 Preamble, UNFCCC.
424 Art 3.4 UNFCCC.
425 Sumudu (2010) 11.
426 WCE 1987 "Our Common Future"
427 Hunter *et al* (2002) 11.
428 Sumudu (2010) 11.

Perhaps an important element of the CBDR principle for the post - 2015 regime is the obligation of the international community to provide financial and technological development and transfer to vulnerable developing countries. According to French, financial and technological transfer constitutes a fundamental element of the CBDR.[429] It is important for the post-2015 regime under Durban track negotiations ADP to deliver an increased finance and technology support for vulnerable developing countries in a dynamic and principle-based differentiation architecture that is helpful for Africa.[430]

3.2.3.3 The precautionary principle

A single, precise definition of the precautionary principle does not exist. However, it is generally accepted that the principle means that a lack of full scientific evidence should not be used as a reason for postponing measures to prevent environmental degradation.[431] Moreover, further scientific research may identify new uncertainties, hence leading to an increased level of uncertainty. As the negotiation process towards the UNFCCC shows,[432] there has been a broad consensus that in order to address climate change one should not delay action until one has certain evidence of its cause. Based on such a consensus, the UNFCCC stipulates this concept in Article 3(3) as one of the "principles" by which the Parties shall be guided in their actions to achieve the objective of the Convention.

On the concept of precaution,[433] a number of authors suggest that precaution has at least a conceptual core on which there is international consensus. For example,

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429 French 2000 *International and Comparative Law Quaterly* 42.

430 Pauwelyn J "The end of differential treatment for developing countries? Lessons from the trade and climate change regimes" 2013 22(1) *Review of European Community and International Environmental Law* 31.

431 Thornton and Beckwith (2004) *Environmental Law* 14.

432 Report of the Intergovernmental Negotiating Committee for a Framework Convention on Climate Change on the work of its Fourth Session, A/AC.237/15 (29 January 1992) page 9 paragraph 50.

433 There has been a controversy about whether it is a "principle" or an "approach". The question relates closely to the legal status of the precautionary principle/approach. Those who argue for its being a principle consider that it has a customary status, while those who argue for

Cameron and Abouchar indicate that three common elements can be derived from its formulations in different international instruments: regulatory inaction threatens non-negligible harm; there exists a lack of scientific certainty on the cause and effect relationship; and finally that under these circumstances, regulatory inaction is unjustified.[434]. Similarly, Birnie, Boyle and Redgwell[435] contend that the precautionary principle does have a legally important core. In performing their obligations of protecting the environment and using natural resources sustainably, states cannot rely on scientific uncertainty to justify inaction when there is evidence to establish the possibility of a risk of serious harm, even if there is as yet no proof of harm.[436]

Thus, Article 3(3) of the UNFCCC has a function to "guide" discourse among Parties by supporting the argument of parties desiring more stringent actions, and hence influencing the norm-creating process. While there has been no precedent invoking the principle either in the dispute settlement procedure or in compliance procedure under the UNFCCC, Article 3(3) has been invoked by parties intending to corroborate their argument for more stringent/conservative actions in the negotiation on implementing rules.[437] One example is the case of EU and developing countries. By invoking this article, they argued to exclude additional activities of "Land Use, Land Use Change and Forestry" (LULUCF) under Article 3(4) of the Kyoto for the first commitment period, of which measurement of enhanced carbon stock involved some uncertainty.[438]

Whether or not and/or to what extent the concept of precaution has an impact on the norm-creating process depends on the circumstances of the matter concerned. In some

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"approach" consider that this is not so. At this stage of this work the term "precaution" is used with a view to avoiding in-depth discussion on terminology and legal status.

434 Cameron and Abouchar (1996) "The Status of the Precautionary Principle in International Law" 45.

435 Birnie Boyle and Redgwell (2009) *International Law and the Environment* 163.

436 The three elements are incorporated in Art 3(3) of UNFCCC, although the Art does not provide a clear explanation as to the level and kind of form and by what level of evidence and by whom it should be proved. Also, it does not provide for the actions that countries are obliged to take.

437 Doloso RE "The precautionary principle: Relevancy in international law and climate change" 2005 LL.M Thesis Lund University 33.

438 Doloso (2005) 33.

cases it may function to institutionalise "caution and prudence" in emerging rules, and in others not.[439] Such vagueness and elusiveness in its content as well as the *ad hoc* nature in which it functions might preclude the concept of precaution from becoming a primary rule of law.[440]

On the other hand, the precautionary principle might function as an interpretive device to import some "prudence and caution" into the assessment of existing rules by the courts and tribunals which face a situation involving scientific uncertainty.[441] For instance, Judge Treves' separate opinion in *the ITLOS Southern Bluefin Tuna* case suggests that the concept of precaution should not only guide the future conduct of states but also the assessment by the courts and tribunals in the specific cases of the urgency of the provisional measures.[442]

Article 3(3) of the UNFCCC is almost a copy of Principle 15 of the Rio Declaration of 1992 except that the reference to taking into account the cost- effectiveness of measures is separately phrased. One could ask if such a difference has any implications for the application of the article.[443]

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439 Yamin F and Depledge J *The international climate change regime: A guide to rules, institutions and procedures* (Cambridge University Press 2004) 114.

440 Yamin Depledge (2004*) The international climate change regime: A guide to rules, institutions and procedures* 115.

441 Lowe suggests the similar function of the concept of sustainable development. Lowe 2001 "Sustainable Development and Unsustainable Arguments", in Alan and Freestone eds *International law and sustainable Development* 19-37.

442 Separate opinion of Judge Treves on *Southern Bluefin Tuna cases* (New Zealand v Japan); Australia v Japan (Jointed cases 3 and 4), Provisional measures, 27 August 1999, at http:/www.itlos.org/start2_en.html (accessed on 12 May 2009).

443 The European Commission communication on precautionary principle 15 seems to provide a similar argument as it emphasizes the following aspects: best available science; objective risk assessment; proportionality; non-discrimination; consistency of measures to be taken with similar measures already taken; and examinations of benefits and costs of action or lack of action. Takamura argues that these procedures are more important in a situation where science could not afford a convincing basis for a decision because of scientific uncertainty. Takamura 2005 "The Precautionary Principle in international Environmental law: Its Current Status and Functions" *The Journal of International law and Diplomacy* Vol. 104, 27-28. Takamura emphasizes the importance of environmental impact assessment in the light of the precautionary principle.

The precautionary principle constitutes a very general rule[444] of conduct of prudence. It implies the need for States to review their obligations of prevention in a continuous manner to keep abreast of the advances in scientific knowledge.[445] Some authors emphasise[446] that the concept of precaution is one of the essential elements constituting and influencing the principle of sustainable development.[447] Others suggest its relationship with the concept of equity.[448]

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444 See Africa's call for a fair, inclusive, effective and equitable new agreement in Copenhagen on 23 October 2009 in Nairobi, Kenya, available at http://www.unep.ord/..../AfricaClimateNegotiationClo. (Accessed on 18 October 2012).

445 United Nations General Assembly Resolution 62/68 (2007) Prevention of transboundary harm from hazardous activities; see also ILC, Draft Article on Prevention of Trans boundary Harm from Hazardous Activities with commentaries, ILC Report on the work of its fifty – third session. General Assembly Official Records Fifty-sixth Session Supplement No. 10 (A/56/10), pp.366-436 (2001).

446 Thornton and Beckwith 2004 Environmental Law 21.

447 Magraw and Hawke "Sustainable Development," in Bodansky D, Brunnee J and Hey (eds) *Oxford handbook of international environmental law* 631-632.

448 Ramajani (2009) "From Berlin to Bali and beyond: Killing Kyoto Softly?" 911. As the UNDP noted in its report, it is mainly poor and vulnerable communities that will disproportionately bear the consequences of climate change, communities, which hardly contributed to the problem. See also Patz *et al* 2007 "Climate change and global health: Quantifying a growing ethical crisis" *EcoHealth* 27

3.2.3.4 Equity

This concept[449] is implicit in the definition of sustainable development offered by the Brundtland Report.[450] The concept may be looked at either as intragenerational equity or intergenerational equity. Intragenerational equity is concerned with equity between people of the same generation.[451] The concept includes considerations of the distribution of resources and justice between nations.[452] It also includes considerations of what is fair for people within any one nation.

Intergenerational equity[453] is about equity between present and future generations.[454] Thornton and Beckwith[455] suggest that the principle of equity may be satisfied by leaving to the next generation a stock of assets which comprises environmental assets, technological assets and "know how". This view refers to intergenerational equity in that environmental resources can be "traded off" against technology and technology can be substituted for environmental assets, whilst still securing an appropriate standard of living for the next generation.[456] At its most extreme, this view implies, for example, that future generations who have access to computer-generated "virtual environment[s]" will have less need for real ones. However, large amounts of disagreement exist about the

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449 Equity has two meanings; equitable utilization of natural resources and equitable cost sharing in managing environmental issues. See Shelton (2000) "Equity" 647-652.

450 The idea of holding the world in trust for future generations is frequently found in international environmental instruments. Examples can be found in principle 1 of the Stockholm Declaration, which states that "man bears a solemn responsibility to protect and improve the environment for the present and future generations."

451 Shukla PR "Justice, equity and efficiency in climate change: A developing country perspective" in Toth F (ed) Fairness concerns in climate change (1999 Earthscan Publications: London) 1-17.

452 Shukla 1999 8.

453 If the theory of intergenerational equity can be criticised for neglecting intra-generational considerations, the same cannot be said of the concept of sustainable development. Both in the Brundtland Report and Agenda 21 there is no doubt that redressing the imbalance in wealth between developed and developing worlds and giving priority to the needs of the poor are important policy components of sustainability. Unlike intergenerational equity, intragenerational equity addresses inequality within the existing economic system.

454 Shukla (1999) 9.

455 Thornton and Beckwith 2005 *International environmental law* 29.

456 Central to this idea is the need to conserve options for the future use of resources, including their quality, and that of the natural environment.

precise extent to which technological assets can properly be substituted for environmental ones.[457]

However, the negotiation process leading to the UNFCCC shows that there had been a controversy among negotiating States on whether the concept includes not only "intergenerational" equity but also "intra-generational equity".[458] This work does not specify what the concept of equity means and what exactly it implicates but limits itself to suggesting that developed countries should assume a relatively higher duty to protect the climate system than developing countries, basing this suggestion also on the concept of CBDR and respective capabilities[459]

The UNFCCC refers to the concept of equity in Article 3(1) as one of the "principles" by which the parties shall be guided in their actions to achieve the objective of the convention and to implement its provisions. According to Article 3(1);

> parties should protect the climate system for the benefit of present and future generations of human kind, on the basis of equity and in accordance with the common but differentiated responsibilities and respective capabilities.

Thus, the concept of equity serves as one of the bases for sharing and allocating the duty to protect the climate system, especially the need to take into account the specific needs and special circumstances of developing countries and vulnerable parties.[460]

The concept has often been invoked by countries under the UNFCCC. For instance, Article 3(1) incorporating the concept was invoked as a guideline for the process launched by the Berlin Mandate aiming to enable adequate action beyond 2000 and

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457 For a detailed discussion on inter/intra-generational equity see Maggio GF "Inter/intra generational equity: Current applications under international law for promoting the sustainable development of natural resources" 1997 4 *Buffalo Environmental Law Journal* 161-220.

458 1992 Report of the Intergovernmental Negotiating Committee for a Framework Convention on Climate Change on the Work of Its Fourth Session 27.

459 Weiss argues that inter-generational equity is already part of the fabric of international law. Weiss 1989 *Fairness to future generations* 78.

460 Art 3(2) and (5).

eventually leading to the Kyoto Protocol[461]. In the course of negotiation under the *ad hoc* Group on the Berlin Mandate (AGBM), the "principle of equitable burden sharing" had been invoked.[462] Practices under the UNFCCC show that equity functions as a criterion or principle for the allocation of burden among countries,[463] but without necessarily clarifying its precise implication or more specific criteria for burden allocation.

The incorporation of the concept of equity into international law has been observed in two main areas. Existing treaties have specified the concept of equity or formulated the equitable principle or the principle of equitable utilization, first within the context of the delimitation of maritime boundaries of continental shelves and exclusive economic zones between States, and second within the context of common resources shared by two or more States, like international rivers and lakes or trans-boundary ground waters[464]. In these two different areas there is a wealth of international jurisprudence in which the concept of equity is applied. For example, there is a series of ICJ cases and arbitral awards in the area of the delimitation of maritime boundaries of continental shelves and exclusive economic zones. The ICJ in the Fisheries Jurisdictions cases applied the concept in the context of allocating fishery resources. The *Lake Lanoux arbitration*[465] concerned the use of shared international watercourses.

Equity has two meanings in the context of environmental protection: the equitable utilization of natural resources[466] and equitable cost-sharing in managing environmental

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461 1995 Berlin Mandate: Review of the adequacy of Article 4, paragraph 2 (a) and (b), of the Convention, including proposals related to a protocol and decisions on follow-up 4.

462 Weiss 1989 *Fairness to future generations* 79.

463 Komott "Equity in International Law," in Toth ed. *Fair Weather? Equity Concerns in Climate Change* (1999) 186-188; Shelton "Equity" in Bodansky, Brunee and Hey eds 2007 *Oxford Handbook of International Environmental Law* 653-658

464 They include, for example, the 1997 UN Convention for the Use of Non-navigational International Watercourses (UN Watercourses convention); the 1992 UNECE Convention on the Protection and Use of Transboundary Watercourses and Lakes (UNECE Helsinki Convention), and other conventions, such as the 1994 Convention on Cooperation for the Protection and Sustainable Use of the Danube River Basin.

465 Lake Lanoux arbitration (France v. Spain) (1957) 12 R.I.A.A 281: 24 I.L.R 101.

466 Maggio (1997) *Buffalo Environmental Law Journal* 179.

issues, particularly in dealing with damage or its risk.[467] The former is typical, for example, in the context of international law, where it is conceived of as a fundamental legal principle. This was confirmed in the international jurisprudence in the Lake Lanoux Arbitration.[468] The CBD also stipulates "the fair and equitable sharing of the benefits arising out of the utilisation of genetic resources" as one of its objectives.[469] On the other hand, equitable cost-sharing in managing environmental issues appears explicitly in the UNFCCC.[470] The ILC Draft Article on the Prevention of Transboundary Harm from Hazardous Activities has both meanings: the articles require the parties concerned to "seek solutions based on an equitable balance of interests" taking into account "all relevant factors and circumstances",[471] including certain factors indicated by Article 10, in handling risks of transboundary harm.[472]

In contrast to the vibrant discussion on the significance of equity, there is little consensus as to what the substantive content of equity in international law may be. It has generally been understood that the specific substance of equity depends on a particular context. This applies to the application of equity in the context of environmental protection. Second, the conceptual framework goes beyond that of existing international law in several respects, such as the time-frame, sovereign equality among States, etc., without sufficient theoretical explanation. Third, its legal implications are not clear. In particular, it is uncertain how the concept could be applied to a particular case from the procedural point of view and what the legal consequences of such application would be.[473] Finally, a similar consideration has been incorporated into other concepts, such as "sustainable utilization", "sustainable development" and

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467 Shelton (2000) "Equity" 640.

468 This case interpreted Art 5 and 6 of the 1997 UN Watercourse Convention

469 Art 1.

470 Art 3(1).

471 Art 9.

472 Some writers, however, argue that this does not reflect customary rules. For an example see Birnie, Boyle and Redgwell *International law and the environment* 202; Boyle 2001 "Codification of international environment law and the ILC: Injurious consequences revisited" 79-84.

473 Birnie, Boyle and Redgwell 2002 *International Law and the Environment* 119-123.

"common but differentiated responsibilities" The relationship between the new concept of equity and similar existing concepts is not clear in many cases.

Equity may take three functions in international environmental law in the case where there is no applicable rule or where existing applicable rules are not sufficiently clear. First, equity may bring about a just and fair solution acceptable to the parties concerned by allowing a judge or decision-maker to extend the scope of consideration into all of the relevant extra-legal factors and circumstances.[474] Secondly, equity may lead to a solution compatible with interests in the environmental protection by providing for a process involving consideration about environmental factors particularly where some devices or schemes are adopted for focusing on environmental factors.[475] Finally, equity may prompt elaborating a specific rule applicable to the subject matter where precedents are accumulated. This function may be strengthened where a court is involved in the application of equity.[476]

There are, however, three kinds of problems with equity in international environmental law. First, there is no common understanding of equity as a legal concept. The precise legal nature of the concept is still uncertain. Second, there is some weakness inherent in equity. The lack of predictability in the application should be pointed out again. Thus, the utility of equity as a gap-filler may be limited unless there are some devices or schemes to overcome such weaknesses. Finally, equity may not be well suited to accommodate common interests, or the protection of common areas. In applying equity, problems are usually dealt with only from the perspective of those States sharing

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474 Lowe (2009) "The Role of Equity in International Law" 418-422.

475 Owen (2007) *Environmental Protection of International Watercourses under International law* 361-362.

476 Representation of future generations in legal proceedings before international courts is a less well developed possibility. Birnie and Boyle argue that what is lacking is a theory of representation before international tribunals capable of according standing to future generations independently of the states and international institutions which are at present the only component parties in the international litigation. Although some interstate or advisory proceedings before the ICJ can be interpreted as involving generational responsibilities, as can a few international human rights decisions, these cases all involve the present generations suing in respect of misdeeds of the past, rather than a future generation challenging those of the present. See Weiss 1999 *International Law, ICJ and Nuclear Weapons* 338.

sovereignty over the resources or engaged in actual activities on them. We need a wider representation in any process for determining a balance of interests to manage such issues as those involving common interests.[477] Such a deficiency may, however, be overcome to some extent where there are multilateral mechanisms involved in the process.

Equity considerations are important in addressing climate change in Africa for several reasons including bringing harmony between developed and developing countries regarding how best to resolve controversies, and addressing Africa's vulnerability. Equity emphasises the need to take into account the specific needs and special circumstances of developing and vulnerable countries.[478] The concept recognises the right of developing countries to pursue development with the support of industrialised or developed states, due to the primary responsibility of developed countries for global environmental degradation, and due to the technology and financial resources they command.[479]

However, under the UNFCCC and its Kyoto Protocol, developing countries have no GHG emission reduction targets. This has been one of the main arguments used by the United States and other countries to justify their refraining from its ratification. Although the most anthropogenic CO2 emissions are still attributable to the developed world, emissions from economically advanced developing countries are growing rapidly. Therefore many Annex I countries expect "more developed" developing states to take certain actions that will contribute to emission reductions. it is an open question whether or not this constitutes a departure from the principle of equity and common but differentiated responsibilities.

3.2.3.5 The special situation/vulnerability principle

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477 Birnie, Boyle and Redgwell (2008) *International law and the environment* 202.
478 Art 3(1) of the UNFCCC.
479 See principle 7 of Rio Declaration of 1992.

The special/vulnerability principle relates to and is thought to be part of the CBDR and equity principles, but it has its own express fundamental element. This element is the express recognition of the special needs, conditions, circumstances and particular requirements of the most vulnerable developing countries.[480] Examples of special needs and circumstances in this regard are economic and social development, the eradication of poverty, and incapacity to adapt to changing environmental conditions.[481]

The principle has been incorporated in a number of conventions and declarations. Principle 6 of the Rio Declaration of 1992 states that:

> the special situation and needs of developing countries particularly the least developed and those most environmentally vulnerable shall be given special priority...

The UNFCCC recognises the vulnerability principle as well.[482] Article 3(2) provides that:-

> in their actions to achieve the objective of the Convention and to implement its provisions, the Parties shall be guided, *inter alia*, by the following: (2) the specific needs and special circumstances of developing country Parties, especially those that are particularly vulnerable to the adverse effects of climate change, and of those parties, especially developing country Parties, that would have to bear a disproportionate or abnormal burden under the Convention, should be given full consideration."[483]

The Article 3(2) of the UNFCCC requires developed country Parties, when considering the impact of their response to climate change, to take particularly into account the needs of such developing countries as small island countries, those prone to natural disasters or those liable to drought and desertification.[484] The requirement to consider the needs of certain categories of States, particularly the most vulnerable developing

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480 Scholtz (2012) 36 *South African Yearbook of International Law* 202.
481 French (2000) *International Comparative Law Quarterly* 36.
482 See Art 3 of UNFCCC of 1992.
483 This principle was first recognised under principle 6 of the Rio Declaration of 1992.
484 French 2000 *International and Comparative Law Quarterly* 42

countries can also be seen in the 1992 UN Convention on Desertification.[485] Article 7 states:

> ...Parties shall give priority to affected African country Parties, in the light of the particular situation prevailing in that region, while not neglecting affected developing country Parties in other regions.

The inter-governmental Panel on Climate Change (IPCC) Fourth Assessment Working Group II report states clearly that Africa is one of the continent's most vulnerable to the effects of climate change.[486]

The vulnerability of the African states is particularly due to their inability to implement adaptation measures.[487] Following the provision of Article 3(2) of the UNFCCC, developed country Parties are required by the Convention to assist vulnerable states in meeting their adaptation costs.[488] The UNFCCC also requires Parties to take "full account of the special needs and situations of least developed countries" with regard to funding and technology transfer.[489]

Moreover, the Copenhagen Accord[490] also recognises the vulnerability of Africa. The Accord provides opportunities for developing countries, particularly those in Africa, to access financial support, capacity building and technology transfer from developed country parties. [491] The Accord reads as follows:-[492]

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485 Art 7.

486 See IPCC Fourth Assessment Working Group II report chapter 4 available at http://www.ipcc.ch/publications_and_data/ar4/wg2/en/contents.hotmail (accessed on 21 October 2012).

487 Scholtz (2011) *South African Yearbook of International Law* 204.

488 Art 4(4). See also Scholtz (2011) *South African Yearbook of International Law* 203.

489 Scholtz (2011) *South African Yearbook of International Law* 203.

490 Decision 2/CP 15 in "Report of the Conference of Parties on its fifteenth session held in Copenhagen from 7 to 19 December 2009" Addendum part two: Action taken by the Conference of the Parties at its fifteenth session FCCC/CP/2009/11/add 1 available at http://unfccc/CP/2009/cop15/eng/11a01.pdf. (accessed on 12 October 2012).

491 Scholtz W "The African continent and the special situation/vulnerability principle in the climate change regime" 2011 *South African Yearbook of International law* 201-202.

492 Paragraph 3.

> enhanced action and international cooperation on adaptation is urgently required to ensure the implementation of the Convention by enabling and supporting the implementation of adaptation actions aimed at reducing vulnerability and building resilience in the developing countries, especially in those that are particularly vulnerable, especially least developed countries, small island developing States and Africa.

Thus, Accord has strong provisions for funding for the climate change adaptation for most vulnerable developing countries, such as the Least Developed Countries, Small Island Developing States.

The Cancun Agreement also recognizes Africa's vulnerability.[493] The significant portion of the funding arising from the Copenhagen Accord is required by the Cancun Agreements to flow through the Green Climate Fund, which is designated as an operating entity of the financial mechanism of the UNFCCC.[494] Based on the Cancun Agreements, developing countries are further empowered to determine their national technology needs based on national circumstances and priorities. In the context of Articles 4.1(c) and 5 of the UNFCCC and consistent with their respective capabilities and national circumstances and priorities, developing countries also have the opportunity to cooperate with developed countries to undertake domestic actions identified through country-driven approaches, to engage in bilateral and multilateral cooperative activities on technology development and transfer, and to increase private and public research, development in relation to technologies for mitigation and adaptation.[495]

The importance of invoking the vulnerability principle under Article 3(2) of the UNFCCC in this discussion is that the principle gives Africa special treatment as evidenced in the

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493 See paragraph 95 of Decision 1/CP16 "The Cancun Agreements; Outcome of the work of the Ad Hoc Working Group on Long-term Cooperative Action under the Convention" FCCC/CP/2010/7/Add1 available at http://www.unfccc.int/resource/docs/2010/cop16/eng/07a01.pdf (accessed on 20 October 2012).

494 See Art 11 of the UNFCCC of 1992.

495 For a detailed discussion see Ramajani L "The climate regime in evolution: The disagreements that survive the Cancun Agreements (2011) 2 *CCRL* 146.

UNFCCC Copenhagen Accord and Cancun Agreements.[496] COPs transmit the legal principles of the UNFCCC and, as Ramajani correctly argues,[497] COP decisions are the conduit of the will of the convention.[498] It should be noted, however, that although both the Copenhagen Accord and the Cancun Agreement contribute to the normative development of the international climate change regime,[499] COP decisions are neither legally binding in the formal sense nor capable of creating substantive new obligations.[500] However, Scholtz also argues that "Articles 3(2), 4(8) and 9 of the UNFCCC read with the Cancun Agreements do not provide Africa with a substantive right to demand funding, insurance and technology transfer. They create a guiding framework for further negotiations as well as expectations on the part of African states."[501]

Recognition of Africa's vulnerability in the IPCC reports may also be applied to affirm the continent's special circumstance under Article 4(4) of the UNFCCC. The challenge is that African countries do not share or experience the same circumstances and needs.[502] For instance, while big economies like South Africa, Nigeria, Egypt and Libya may fear the detrimental economic consequences of climate change response measures, many other African states are generally concerned about shrinking coastlines, desertification, diminishing marine resources, water scarcity and many other problems induced by climate change.[503]

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496 Scholtz (2011) *South African Yearbook of International Law* 205.

497 Ramajani L "Adressing the post-Kyoto stress disorder: Reflections on the emerging legal architecture of the regime" 58/40 2009 *International and Comperative Law Quarterly* 803 and 813.

498 Smith C "The Bali firewall and member states' future obligations within the climate change regime" 2010 6/3 *Law, Environment and Development Journal* 287..

499 Scholtz (2011) *South African Yearbook of International Law* 205.

500 Ramajani (2009) *International and Comperative Law Quarterly* 813.

501 Scholtz (2011) *South African Yearbook of International Law 207.*

502 Scholtz W "The promotion of regional environmental security and Africa's common position on climate change" 2010 10/1 *African Human Rights Law Journal* 7.

503 Gray and Gupta (2003) 'Climate change regime and Africa' 67.

3.2.4 UNFCCC conferences of the parties (COPs)

Since the Kyoto Protocol's entry into force in 2005, the attention has been on the question of what to do after 2012, when the first commitment period for the Kyoto Protocol ends. Thus, discussions about additional commitments have been under way for some time now, although they have been sluggish and contentious.[504] The complexity and scope of the issues to be tackled are reflected in the process that parties agreed in 2005 and involve multiple tracks for considering further actions under the UNFCCC umbrella. For example an *ad-hoc* Working Group under Kyoto Protocol (AWG-KP) was formed[505] and tasked with considering new commitments for Annex I parties,[506] and an open ended "dialogue" on "long-term cooperative action" (AWG-LCA) was launched under the auspices of the UNFCCC at COP 13 in Bali.[507] The latter was created to complement the AWG-KP that had already been tasked with considering future Kyoto commitment.[508] The plan required that any "shared vision" be "in accordance with the provisions and principles of the convection, in particular, the principle of 'common but differentiated responsibilities and respective capabilities.'"[509]

The AWG-LCA was created with the mandate to develop a comprehensive outcome, including a shared long-term vision, mitigation commitments or actions by developed countries, nationally appropriate mitigation actions (NAMAs) by developing countries,

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504 See Ramajani L (2009) *International and Comparative Law Quarterly* 803.

505 See Art 3(9).

506 UNFCC Report of the Conference of the Parties on its eleventh session, held at Montreal from 28 November to 10 December 2005, Decision 1/CP.11 (Dialogue on long-Term convention), U.N. Doc.FCC/CP/2005/5/Add.1, (Dialogue), online at hhttp://unfcc.int/resource/docs/2005/cop11/eng/05a01.pdf. (Accessed on 20 March 2010).

507 The conference took place in 2007.

508 See Terry Barker *et al* "Technical summary,'" in Metz B *et al* eds *Climate change 2007 contribution of working group III to the fourth assessment report of the intergovernmental panel on climate change* (2007 Cambridge and New York: Cambridge University Press) 39 and 90 available online at www.ipcc.ch/pdf/assessment-report/ar4/wg3/ar4-wg3-ts.pdf (accessed on 13 April 2012).

509 See Hunter D "The future of the U.S climate change policy" 79.

financial arrangements, measures to address adaptation and technology transfer, and a system for measurement, reporting and verification (MRV).[510]

The two-track mechanism of the negotiating process has raised two related questions. First, should the negotiations result in two outcomes, one under the Kyoto protocol and the other under the UNFCCC, or a single outcome that brings together the two tracks? Second, should the outcome or outcomes be legal in nature? The countries with Kyoto emission targets (including the EU member states, Japan, and Australia) were generally unwilling to accept a new round of emission targets under Kyoto for the post-2012 period unless the other major emitters (including the United States and China) accepted legal commitments as well, and their express preference was for a single new comprehensive legal agreement that would replace Kyoto.[511] The US has a similar position. it has proposed the negotiation of a single binding agreement that would address both developed and developing country emissions, although it has specifically said that such an agreement could live alongside a post-2012 Kyoto agreement. On the other side, developing countries are united in opposing a one-track approach, and repeatedly insisted at the Copenhagen conference that the Kyoto track receive equal attention – and make as much progress - as the convention track. Having succeeded during the Kyoto process in establishing what amounts to a firewall between Annex I and non-Annex I parties, they are unwilling to give that up now by replacing Kyoto with a new legal instrument.[512] But developing countries differed in their views about the

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510 See Richard BA *et al* "IPCC 2007: Summary for policymakers", in Susana S *et al* eds *Climate change 2007: The physical science basis: Contribution of working group I to the fourth assessment report of the Intergovernmental Panel on Climate Change* (Cambridge and New York: Cambridge University Press, 2007) 5 available online at www.ipcc.ch/pdf/assessment-report/ar4/wg1/ar4-wgl-spm.pdf (accessed on 13 June 2012) and Pew C "Key Scientific Developments since the IPCC Fourth Assessment Report" *Science Brief 2* June 2009 available at www.pewclimate.org/brief/science-developments/June2009 (accessed on 13 April 2012.

511 "Canada pulls out of Kyoto protocol" The Guardian 13 December 2011 available at http://www.guardian.co.uk/environment/2011/dec/13/canada-pulls-out-kyoto-protocol (accessed on 12 October 2012).

512 Bodansky D "The Copenhagen climate change conference: A post-mortem" (2010) *American Journal of International Law* vol. 104, 1-11.

outcome of the convention track.[513] India and China insisted that developed country parties agree to a second commitment period under Kyoto, but opposed the adoption of a new legal agreement addressing their own emissions.[514] In contrast, other developing countries (including the small island states) supported, as a complement to Kyoto, the negotiation of a new legal agreement that would be more comprehensive in coverage, including the United States and major developing countries such as China, India and Brazil.[515]

Basically, AWG-LCA was intended to keep the US and Australia, which had also refused to join the Kyoto Protocol, engaged in global deliberations, and also to provide a forum for engagement with developing countries. Thus post-Kyoto protocol COPs followed the two approaches, the aim being to strengthen the climate change legal regime.

The discussion in this part begins with COP 15, because this is the conference that was expected to come up with an agreement to replace the Kyoto Protocol first commitment period.

3.2.4.1 COP 15 and the Copenhagen accord

The Copenhagen conference, which met from December 7-19 2009, had been intended as the deadline to resolve questions pertaining to whether or not the Kyoto Protocol should be extended through the adoption of a second commitment period, with a new round of emission reduction targets for developed state parties. If so, should a new agreement be adopted under the UNFCCC, which addresses the emissions of countries that are either not parties to the Kyoto Protocol (the USA etc) or do not have Kyoto

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513 Bodansky (2010) *American Journal of International Law* 7.

514 Bodansky (2010) *American Journal of International Law* 8.

515 Cao J "Beyond Copenhagen: Reconciling international fairness, economic development and climate protection" (2010) *The Harvard Project on International Climate Agreement*, Discussion Paper 10-44.

emission targets (developing countries); or should a single new agreement be adopted that replaces the Kyoto Protocol and is more comprehensive in coverage, addressing both developed and developing country emissions?

The negotiation by the AWG-LCA of a post-2012 climate change regime was supposed to conclude in 2009 at the Copenhagen conference of the parties (COP).[516] This deadline created high expectations for Copenhagen - much higher than for any previous COP except perhaps Kyoto. In preparation for the Copenhagen conference the two AWGs met five times in 2009, three times in Bonn, and once each in Bangkok and Barcelona. Despite the call by the COP at its 2008 meeting in Poznan for the AWGs to shift into "full negotiating mode," states instead simply restated their positions at meeting after meeting. As a result, the states made little progress in narrowing their differences and the 150+ page texts going into Copenhagen were heavily bracketed, making agreement in Copenhagen almost impossible. At the final preparatory meeting held in November 2009, both the UNFCCC Executive secretary and the chair of the AWG-LCA acknowledged what many had been saying throughout the year, namely that Copenhagen would be able to produce, at best, a political agreement, rather than a fully fledged legal instrument.[517]

There were a number of procedural drawbacks during the negotiations. For example, for the first week and a half the negotiations continued in the two AWGs, making little progress. Attempts by the Danish president of the conference to organize a smaller group to address the core issues were strongly resisted by developing countries, who claimed that meetings of a smaller group would be undemocratic and illegitimate.[518] Instead, they insisted that negotiations continue on the basis of the heavily bracketed

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516 Although the AWG-KP does not have a specific deadline, Copenhagen served as an informal deadline for its work as well.

517 Conti F "Toward a post-2012 international climate agreement" (2010) The *Harvard Project on International Climate Agreement* Discussion Paper 1-9.

518 Bodansky (2010) *American Journal of International Law* 7.

texts that had emerged in the AWGs over the past two years, in "contact groups" open to all parties.[519]

The Copenhagen Accord was the result of a one-day discussion between the United States of America, China, India, Brazil, and South Africa, after these states noted the apparent failure of the Conference.[520] This attempt to salvage the situation was accepted by over 180 party states, including the European Union (represented by Sweden as President and the European Commission), China, India, Brazil, South Africa, the UK, France, Germany, Denmark, Australia, Canada, Japan, Russia, Grenada (on behalf of AOSIS), Ethiopia (on behalf of the African Union), Lesotho (for the least developed countries), Sudan (for the G-77), Algeria, Bangladesh, Colombia, Gabon, Indonesia, the Maldives, Saudi Arabia, the Republic of Korea, and Mexico.[521] The breakthrough was finally reached in an even smaller meeting between President Obama, Chinese Premier Wen Jerboa, Indian Prime Minister Singh, Brazilian President Lula, and South African President Jacob Zuma.[522]

The Copenhagen Accord, like the Kyoto Protocol, also conforms to the guiding principles of the UNFCCC. This Accord, in as much as it was made by a small group, was able to bring the United States on board the climate change regime, although it had refused to ratify the Kyoto Protocol.[523]

The Copenhagen Accord recognises the importance of dealing with climate change, underlining that climate change is one of the greatest challenges of our times.[524] It also recognizes the scientific view that the increase in global temperature should be below 2 degrees Celsius, and on the basis of equity and in the context of global development,

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519 Cao (2010) *The Harvard Project on International Climate Agreement*, Discussion Paper 15.

520 Akanle T *et al* "A brief analysis of the Copenhagen climate change conference" IISD commentary December 2009.

521 Cao (2010) *The Harvard Project on International Climate Agreement*, Discussion Paper 5.

522 Akanle T *et al* (2009).

523 The decision was reached on 18 December 2009.

524 See UNFCCC, Decision-/CP 15 at http//:unfccc.int/2860.php (Copenhagen Accord) (accessed on 18 May 2010) para 1.

enhances long-term cooperative action to combat climate change.[525] This had been a contentious issue before the conference, with some scientists producing evidence that is contrary to common knowledge.[526]

The Accord enshrines the agreement that deep cuts in global emissions are required with a view to reducing global emissions. For this reason the Accord argues for the peaking of global and national emissions as soon as possible, recognising that the timeframe for peaking will be longer for developing countries.[527]

It captures the agreement that developed countries shall provide adequate, predictable and sustainable financial resources, technology and capacity building to support the implementation of adaptation action in developing countries.[528] In Copenhagen developing countries strongly objected to setting a date for the peaking of their emissions and also resisted adopting a global emissions goal or a greenhouse gas concentration target because of the implications these would have for their own emissions. (Although developed countries had pledged to reduce their emissions by 80 per cent by 2050, the goal would still require developing country emissions to peak and begin to decline prior to 2050). In the end, states could agree only that a "deep cut" in emissions was necessary, with a view to limiting the increase in global temperature to no more than 2 degrees Celsius[529]. In deference to the Maldives and other small island states, which had pushed for a 1.5 degree Celsius limit on global temperature change, the Copenhagen Accord provides for consideration of a stronger long-term goal as part of the assessment of the Accord's implementation that will be completed by 2015.[530]

The Copenhagen Accord establishes a bottom-up process that allows each Annex I party to define its own target level, base year and accounting rules, and to submit its

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525 Para 1.
526 Bodansky (2010) *American Journal of International Law* 9.
527 Para 2.
528 Para 3.
529 See para 2.
530 See para 12.

target in a defined format, for compilation by the UNFCCC Secretariat. Under the terms of the Accord, Annex I countries "commit to implement" their targets, individually or jointly, subject to international monitoring, reporting and verification (MRV).[531]

Moreover, the Accord stipulates that developing country NAMAs that receive international support should be subject to some type of international review, and that a "matching mechanism" should be established to link developing country proposals with financing by developed countries.[532] It establishes a registry for listing NAMAs for which support is sought, and provides that supported NAMAs "will be subject to international measurement, reporting and verification in accordance with guidelines adopted by the COP".[533] The principal issues relating to developing country mitigation are related to "autonomous" mitigation actions - that is, emission reduction measures that do not receive any financial support from developed countries. Should these be purely a matter of national discretion, subject only to national reporting and verification or should they be internationalised in some fashion – for example, through inclusion in a schedule that is subject to international review? And, more generally, should developing country mitigation actions (both supported and autonomous) be expected to add up to a particular quantitative reduction below business-as-usual? These issues became the principal bone of contention between the United States and developing countries during the Copenhagen conference, with the United States and many other developed countries insisting on measurement, reporting, and some form of international review, and China and other developing countries rejecting any international review.[534]

The Accord recognises the vulnerability of developing countries, particularly in Africa.[535] The Accord provides opportunities for developing countries, particularly in Africa, to

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531 See para 4.
532 See para 5.
533 Para 5.
534 For a detailed discussion on these issues see Ramajani L "The making and unmaking of the Copenhagen Accord" 2010 59 *International and Comparative Law Quarterly* 824-843.
535 Decision 2/CP 15 in "Report of the Conference of Parties on its fifteenth session held in Copenhagen from 7 to 19 December 2009" Addendum Part Two: Action taken by the

access financial support, capacity building and technology transfer from developed country parties.[536]

Paragraph 5 of the Copenhagen Accord stipulates:

- As with developed country emissions targets, there is established a bottom-up process by which developing countries will submit their mitigation action in a defined format, for compilation by the UNFCCC secretariat (including both autonomous and supported mitigation actions).
- Non-Annex I parties "will implement" these actions.[537]
- Developing country mitigation actions will be subject to domestic MRV and developing countries will report on the results of this domestic MRV in Biennial national communications, with provisions for "international consultation and analysis under clearly defined guidelines that will ensure that national Sovereignty is respected.

The question that may be asked regarding NAMAs for developing countries under the Accord is where to get sufficient funding. Although states generally agree on the need for substantial new funding to help developing countries mitigate and adapt to climate change, they conceptualise this funding differently. The US and other developed countries see financial assistance, in essence, as part of an implicit *quid pro quo* linked to developing country mitigation commitments. Developing countries, in contrast, see it as payment of the "carbon debt" that they believe that developed countries owe them for their historical emissions.[538]

Conference of the Parties at its fifteenth session FCCC/CP/2009/11/add 1 available at http://unfccc/CP/2009/cop15/eng/11a01.pdf. (accessed on 12 October 2012).

536 Scholtz W "The African continent and the special situation/vulnerability principle in the climate change regime" 2011 *South African Yearbook of International law* 201-202.

537 In the case of least developed counties and Small Island developing states (SIDS), actions may be taken "voluntarily and on the basis of support". See para 5 of the Copenhagen Accord.

538 Bodansky (2010) *American Journal of International Law* 7.

The discussions about financial support revolved around this issue. How much money, from what source, and with what high governance arrangements? The Accord addresses only the first part of this issue, leaving the other two for future resolution. It creates a "collective commitment'" for developed countries to provide "new and additional resources... approaching $30billion" in "fast start" money for the 2010-2012 period, and for balance between adaptation and mitigation, and sets a longer-term collective "goal" of mobilising $100 bilion per year by 2020 from all sources (public and private, bilateral and multilateral), but links this money to "meaningful mitigation actions and transparency on implementation".[539] It calls for the governance of adaptation funding through actions and transparency on developing and developed country parties, but does not establish a governance arrangement for finance more generally.

Finally, the Accord calls for the establishment of a Copenhagen Green Climate Fund (GCF)[540] as an operating entity of the UNFCCC's financial mechanism, as well as a High Level Panel to consider potential sources of revenue to meet the $100 billion per year goal,[541] and provides that a "significant portion" of the international funding should flow through the GCF.[542]

The Copenhagen Accord establishes the bottom-up approach in which countries unilaterally define their own national climate change approach, based on their own national pledges. It specifies national emissions targets in the 2020 time-frame, but allows each party to determine its own level, base year, and accounting rules.[543] However, the Accord has little weight in the Global Climate Change regime because it does not serve as a binding instrument which could replace the Kyoto Protocol. It was not even adopted as the decision of COP 15, but rather the COP took note of its existence, giving it some status in the UNFCCC process but not as much as

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539 See para 8.
540 See para 10.
541 See para 9.
542 See para 8.
543 Bodansky D "W(h)ither the Kyoto Protocol? Durban and Beyond" 2011 *Harvard Project on Climate Change Agreements* 4.

endorsement by the COP. Those countries that wish to "associate" themselves with the Copenhagen Accord were to notify the UNFCCC Secretariat for inclusion in the list of countries in the chapeau.[544]

January 31 2010 was the deadline for the Parties to submit their respective plans to reduce GHG emissions. As of May 2012 the UN Secretariat had received submissions from more than 141 countries regarding their plans to reduce their GHG emissions and/or those wishing to be associated with the Copenhagen Accord.[545] In many cases countries have been providing information on their mitigation actions and have impliedly "associated" themselves with the Copenhagen Accord, but a number of countries - most notably China and India – have done so expressly.[546] Thus, although the Accord does not constitute a legally binding norm, it serves as a very important normative international environmental law instrument that plays an important role in the climate change regime.[547]

The Copenhagen Accord has been criticised by many as an inadequate and insufficient international instrument. For example, Lavanya Ramajani calls it a "rotten" document, not just because it is weak and will not contain climate change in its current form, but because even in this weak form it faces considerable legal challenges to its operationalisation.[548] In the same tone Navroj Dubash refers to the Accord as "a paper thing, a cover-up of what was a near complete failure". He argues that the Accord may "represent the worst possible outcome - the overlay of a thin veneer of success over

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544 Bavishi R and Oxfam GB "The Copenhagen accord: Legal analysis" available at http://www.legalresponseinitiative.org/download (accessed on 25 June 2013.

545 See Climate action network report available at http://www.usclimatenetwork.org/copenhagen-accord-commitments (accessed on 25 June 2013).

546 For an up-to-date summary of national submissions related to the Copenhagen Accord, see US climate action network, "Who's on board the Copenhagen Accord," http://www.Usclimatenetwrk.org/policy/cojpenhagen-accord-commitments (accessed on 23 October 2010).

547 Bodansky (2010) vol. 104 *American Journal of International Law* 9.

548 Rajamani L "Neither fish nor fowl" (Feb.2010) available at http://www.cprindia.org (accessed 12 May 2012).

what is a deeply flawed outcome perpetrating a process that is unable to overcome entrenched differences."[549]

However, the Accord recognises the vulnerability of Africa as a geographical region[550] and requires urgent and enhanced international cooperation on adaptation to ensure the implementation of adaptation actions to reduce vulnerability.[551] Accordingly, it provides long-term finance of US$ 100 billion a year by 2020, mobilised from various sources.[552] The recognition of Africa's vulnerability in the Accord may strengthen the African position on climate change and may take Africa to a prioritised, preferential position under the international climate change regime.[553]

The Accord serves as a basis for future discussions. For the first time, the major developing countries agreed to reflect their national emissions reduction pledges *in an* international instrument, to report on their GHG inventories and their mitigation actions in biennial communications, and to subject their actions either to MRV (for International support actions) or to "[i]nternational consultation and analysis under clearly defined guidelines that will ensure that national sovereignty is respected" (for domestically supported actions).[554]

COP 15 decided to extend the mandate of the AWG-LCA, which met in November 2010 in parallel with the AWG-KP, to come up with a much more effective mechanism for the post-2012 period than the Kyoto protocol, which has been facing major obstacles, chief of which has been its non-ratification and/or compliance by the world's greatest emitters, the USA and China.

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549 Dubash NK Copenhagen: Climate of mistrust 44 *ECONOMIC& POLITICAL WEEKLY* 8, 10 (Dec. 29. 2009).

550 Scholtz 2012 *South African Yearbook of International Law* 206.

551 Para 7 of the Copenhagen accord.

552 Rogel *et al* "Analysis of the Copenhagen accord pledges and its global climatic impacts- A snapshot of dissonant ambitions" 2010 5 *Environmental Research Journal* 1-10.

553 Scholtz 2012 *South African Yearbook of International Law* 208.

554 Para 10 of the Accord.

3.2.4.2 COP 16 and Cancun agreements

After frustrations in Copenhagen during COP15, the struggle to rescue the multilateral climate change regime continued in Cancun, Mexico at the end of 2010.[555] By the end of the conference the parties had finalised the Cancun Agreements, which included decisions under both negotiating tracks.[556]

The Cancun Agreements endorsed the Copenhagen Accord.[557] Under the UNFCCC track the parties recognised the need for deep cuts in global emissions in order to limit global average temperature rise to 2 degree Celsius. The parties also agreed to consider strengthening the global long-term goal by 2015 during a review in relation to the proposed 1.5 degree Celsius target.[558] They also took note of the emission reduction targets and nationally appropriate mitigation actions (NAMAs) communicated by developed and developing countries respectively.[559]

One of the two main outcomes of the conference that produced the Cancun Agreements was the affirmation of Africa's vulnerability to the consequences of climate change.[560] Thus, the Cancun Agreements recognise Africa's vulnerability to climate change.[561] The Agreements expanded responsibility to create an enabling environment for participation in international climate policy. Developing countries were asked to prepare national planning documents which assess environmental and institutional vulnerability in order to ensure participatory decision making, and education and

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555 The meeting took place from 29 November to 11 December 2010).

556 See IISD Earth negotiations bulletin 13 December 2011 available at http://wwwiisd.ca/climate/cop17/ (accessed on 23 June 2012).

557 UNEP "The emissions gap report: Are the Copenhagen Accord pledges sufficient to limit global warming to 2C or 1.5C? A preliminary Assessment November 2010.

558 Decision 1/CP.16.

559 See FCCC/SB/2011/INF.Rev.1 and FCCC/AWGLCA/2011/INF.1, both issued after Cancun conference.

560 The two major Decisions were; Decision 1/CP.16 which includes the outtcome of the work by the AWG-LCA and Decision 1/CMP.6 which reflects the outcome of the work undertaken by the AWG-KP.

561 See paragraph 95 of Decision 1/CP.16 and Scholtz (2011) *South African Yearbook on International Law* 203.

training, to safeguard reliable monitoring, reporting and verification (MRV), and to address legal and regulatory coherence.[562] Reporting by a developing country triggers commensurate support from developed countries, and a proactive institutional reform obviates barriers to the enjoyment of that support. The Cancun Agreements therefore enjoins Africa's priority needs for the achievement of sustainable development. The Agreements provide African countries with a framework to specify their needs for mechanisms such as REDD+, NAMAs and adaptation.[563]

For instance, NAMAs permit developing countries to attract climate finance by encouraging bilateral and other alternative low-carbon investments based on country-driven priorities and capabilities. While the Bali Action Plan laid the ground for the approach in 2007,[564] the Cancun Agreements established a formal registry to record NAMAs seeking support and facilitated matching finance, technology and capacity building assistance from developing countries.[565]

Although the Cancun Agreements have been praised for restoring faith on the multilateral process after the failure of the Copenhagen conference, there were a number of substantive disagreements which were not resolved, particularly relating to the commitments of the industrialised countries.[566] However, the Cancun Agreements contained an impressive set of substantive decisions and formulated an ambitious negotiation agenda for the Durban climate conference, which took place in 2011.

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562 UNFCCC decision -/CP.16 Art. 1.2(b).

563 Mason S "The Cancun agreements and legal preparedness for climate change in developing countries" 2011 Legal Working Paper Series *International Development Law Organisation* 1-8.

564 UNFCCC Decision 1/CP.13 "Bali Action Plan", (3-14 dec 2007)Art 1(b)(ii).

565 Art III B. 53.

566 Ramajani L "The climate regime in evolution: The disagreements that survive the Cancun agreements" 2011 2 *CCRL* 146.

3.2.4.3 COP 17 and the Durban platform for enhanced action

A UN climate change conference was held in Durban, South Africa from 28 November to 11 December 2011.[567] The parties strengthened the climate change regime with decisions to implement the 2010 Cancun Agreements, extended the Kyoto Protocol for a second commitment period, and launched a new process to negotiate a post-2020 climate regime.[568] The new process, which is to be carried through by the Ad-Hoc Working Group on the Durban Platform for Enhanced Action, is intended to come up with the agreement that will govern, regulate and incentivise future generations on climate change actions.[569]

The Durban climate change conference is praised for adopting decisions which have advanced the climate change regime, such as giving certainty to the future of the Kyoto Protocol, making a roadmap towards a post-2020 climate regime, and taking decisions to fulfil the promises of the Cancun Agreements.[570]

However, the Durban Platform for Enhanced Action did not make reference to Africa's vulnerability to climate change.[571] Bodansky criticises the Durban Platform for Enhanced Action as inadequate.[572] It did not make reference to least developed countries and dealt almost exclusively with mitigation.[573] It ignored the demands of the

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567 Earth negotiating bulletin "Summary of the Durban climate change conference: 28 November -11 December 2011" International Institute for Sustainable Development (IISD) available at http://www.iisd.ca/download/pdf/enb12434epdf (accessed on 12 September 2012).

568 Ramajani L "The Durban platform for enhanced action and the future of the climate change regime" 2012 61 *International and Comparative Law Quarterly* 501.

569 Ramajani (2012) *International and Comparative Law Quarterly 501.*

570 Ramajani (2012) *International and Comparative Law Quarterly* 515.

571 Scholtz (2011) *South African Yearbook of International Law* 202. See also Decision CP 17 Establishment of an Ad-Hoc Working Group on the Durban Platform of Enhanced Action 2011 available at http://www.unfccc.int/file/meetings/durban_nov_2011/decisions/application/pdf/cop17_durban platform.pdf (accessed on 23 September 2012).

572 Bodansky D "The Durban platform negotiations: Goals and options" 2012 *Harvard Project on Climate Agreements Viewpoint* 4 available at SSRN:http://ssrn.com/abstract=2102994.

573 Banerjee SB "A climate for change? Critical reflections on the Durban United Nations climate change conference 2012 33/12 *Organisation Studies* 17-1786.

developing countries, particularly Africa, to include adaptation policies. Countries vulnerable to climate change effects require adaptation assistance because even if the world were to produce zero emissions from this point on, climate change impacts will still occur.[574] Equity was sacrificed in favour of agreeing on a legal instrument whose form and enforcement remains unknown.

3.2.4.4 COP 18 and the Doha climate gateway

The UN climate change conference in Doha, Qatar, took place from 26 November to 8 December 2012. This conference included the 18th session of the Conference of the Parties (COP) to the UNFCCC and the 8th session of the Conference of the Parties serving as the Meeting of the Parties to the Kyoto Protocol (CMP 8).[575]

The Doha conference had one crucial task to accomplish, that being to define the short-term emissions reduction strategy. The rules for the second round of the Kyoto Protocol had been drafted in COP 17 in Durban but there were some elements of uncertainty.[576] The major objective of the Doha conference was to define the contents of the amendments to the Kyoto Protocol and to allow the second commitment period to start on January 1st 2013.[577] The major achievements under the Doha climate gateway were therefore the extension of the 1997 Kyoto Protocol to a second round, and the production of a work plan for negotiating a new global climate change pact by 2015, to be implemented starting 2020.[578]

Despite the achievements, the Doha conference made limited progress in advancing international talks on climate change and failed to set more ambitious goals for reducing

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574 Banerjee 2012 *Organisation Studies* 1772.
575 See Earth negotiations bulletin vol 12 No 567 International Institute for Sustainable Development (IISD) 11 December 2012.
576 Marinella D "The Doha climate gateway: A first key-point assessment" 2012 *Review of Environment Energy and Economics* 1-8.
577 Marinella (2012) *Review of Environment Energy and Economics* 3.
578 Marinella (2012) 7.

greenhouse gas emissions by developed countries.[579] That failure increases the risk of a rise in average global temperatures by 2 degrees Celsius by the end of this century. The emission gap report of 2012 by the UN Environment Programme (UNEP) stresses that if the world does not accelerate action on climate change, total yearly greenhouse gas emissions could rise to 58 gigatons in 2020 (compared to 40 gigatons in 2000), far above the level scientists say would probably keep temperature increases below 2 degrees Celsius.[580] All regions of the world will suffer if this happens, but the poor will suffer most and sustainable development in Africa will be adversely affected.[581]

Despite the limited consideration shown for Africa, the Doha climate gateway came up with a few developments which benefit the region. The first one was the formal extension of the Kyoto Protocol, with continued access to carbon-trading market mechanisms such as the Clean Development Mechanism (CDM).[582] The second was financing for the formulation and implementation of national adaptation plans for all particularly vulnerable countries, not just the small island developing states and least developed countries, as had previously been the case.[583] The third was the agreement to develop an international mechanism to address loss and damage, which would support countries affected by slow-onset events such as droughts, glacial melting and rising sea levels.[584] The fourth was a programme for climate change education and training and for the creation of public awareness to enable the public to participate better in climate change decision making.[585] And lastly there was the agreement to

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579 Chako R "Outcome of Doha climate negotiations" 2012 Analysis from Conservation International available at http://www.conservation.org (accessed on 20 July 2013).

580 UNEP "Emissions gap report" 2012 UNEP Synthesis Report Nairobi available at http://www.unep.org/publications/ebooks/emissionsgap2012 (accessed on 12 October 2012).

581 Good examples are severe droughts in the Horn of Africa in 2011 and in the Sahel region in 2012, which highlighted Africa's vulnerability to the impacts of climate change.

582 Decision 1/CMP.8 paragraph 9.

583 Decision 2/CMP.8 and 4/CMP.8.

584 Decision 3/CP.18. The conference requested developed country parties to provide developing countries with finance, technology and capacity building to address the loss and damage they incurred. Despite the reluctance shown by developed countries, the approach is expected to be formalised in a new international mechanism at the 19th COP.

585 Decision 12/CP.18

assess developing countries' needs for green technology, as well as a pledge that no unilateral action would be taken on the development and transfer of technologies. [586]

3.2.4 Differential treatment

Differential treatment in the climate change regime is the most complex issue to arise since the negotiation of the UNFCCC and the Kyoto Protocol. As discussed above, the UNFCCC established the CBDR principle[587] but did not make an absolute separation between developed and developing countries.[588] The convention elaborated general obligations common to all parties, additional commitments relating to reporting and financial assistance for Annex I and Annex II parties respectively, a "degree of flexibility" for countries with economies in transition, special consideration for least developed countries, and a procedure by which the classification of countries could be reconsidered as circumstances changed.[589] However, the Kyoto Protocol categorically excluded any new commitments for non-Annex I parties, applying a comparatively flexible principle instead.[590] Thus, the Kyoto Protocol sharply differentiates between Annex I and non-Annex I parties[591] and commits developed countries only to reduce the emissions of GHG. This has caused a divide between developed and developing countries (the North-South Divide) and has weakened the regime.[592]

Neither the Copenhagen Accord nor the Cancun Agreements provide any guidance on the debate.[593] The Copenhagen Accord refers to the CBDR principle but just as a political necessity and in a different manner than in the Kyoto Protocol.[594] The Cancun

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586 Decison 3/CMP.8 and 4/CMP.8. and 14/CP.18.
587 See Art 4(2) of UNFCCC of 1992.
588 Bodansky (2011) *Harvard Project on Climate Agreements* 4.
589 See Art 4(3).
590 Arts 2 and 3 of Kyoto Protocol of 1997.
591 Developing and developed countries.
592 Heyward M "Equity and international climate change negotiations: A matter of perspective" 2007 7 *Climate Policy* 518-534.
593 See the consideration of future commitment periods for parties included in annex 1 of the convention KP Dec. 1, December 9, 2005, UN Doc. FCCC/KP/CMP/2005/8/Add.1.
594 Ramajani (2011) 2 Climate Change Law Review 145.

Agreements also signal a shift towards greater parallelism between developed and developing countries in terms of the requirements related to mitigation actions/targets and to the related MRV. They take the approach of the Copenhagen Accord in that mitigation actions/targets are listed and taken note of.[595] However, unlike the Copenhagen Accord, the Cancun Agreements use identical framing language - predictive rather that prescriptive - both for the mitigation actions by developing countries and the mitigation targets of developed countries.[596] Moreover, the Durban Platform makes no reference to the principle of equity or the CBDR principle.[597] This indicates the relaxing the CBDR principle.

The Durban Platform does not repeat the UNFCCC's language that developed countries should take the lead in combating climate change. It also does not refer to developing, developed, Annex I or non-Annex I parties, which are terms common in the climate change regime.[598] This suggests that the application of the CBDR/equity principles in the regime is relaxing. There are examples that show the relaxation of these principles. For instance, paragraph 7 of the Durban Platform records a decision which launches a work plan for enhancing mitigation ambition with a view to ensuring the greatest possible effort by "all parties".[599] Second, there is a recurrence of the phrase "applicable to all parties" in the Durban Platform, which suggests the relaxation of the CBDR/equity principles.[600]

Although the UNFCCC and the Kyoto Protocol are applicable to all parties (whether developed or developing), they do not contain common and similar commitments for all parties.[601] Therefore, doing away with the CBDR/equity principles may amount to

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595 Bodansky (2012) 10.
596 Bodansky (2012) 10.
597 Bodansky (2012) 4.
598 Bodansky (2012) 4.
599 Ramajani (2012) 61 *International and Comparative Law Quarterly* 509.
600 Ramajani (2012) 509.
601 Bodansky (2012) 4.

amending the UNFCCC and the Kyoto Protocol. Moreover, developing countries oppose the idea of relaxing the CBDR/equity principles and insist on their application.[602]

Doing away with the application of the CBDR/equity principles may be disadvantageous to Africa. Instead of relaxing the application of the CBDR principle, which is clearly stipulated in the UNFCCC and the Kyoto Protocol, COPs should strive to re-categorise state parties into developed countries, countries with economies in transition, and developing/vulnerable countries in need of special assistance. The countries in each category would be committed in to a generic set of actions in accordance with their degree of contribution and respective capabilities. This would enable some allocation of commitments to the "developed developing" countries (countries with economies in transition) such as China, India, South Africa, etc, and might mitigate the North-South divide.

3.2.5 Post-2015 climate change agreements under the Durban platform

The two working groups which hosted the negotiations in the past few years were closed in COP 18 in Doha, and the action has now moved to the Durban Platform.[603] However, the success of the new negotiating track may depend largely on how the Parties are able to build on the lessons learned in the last 20 years.
The question in relation to this thesis is whether or not the new negotiating track builds on the principles of equity and CBDRCR under the 1992 UNFCCC.[604] What is the fate of vulnerable developing countries, particularly those in Africa?

As seen above, the COP 18 in Doha did not show significant changes in how vulnerable developing countries' interests are addressed by the new track. The Durban Platform

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602 For example, India argued, during COP 17 in Durban that doing away with the CBDR principle would be tantamount to amending the UNFCCC. See Ramajani (2012) 61 ICLQ 509.

603 Marinella (2012) *Review of Environment Energy and Economics* 3.

604 Art 3.

Decision provides *inter alia,* that negotiations of a new instrument with legal force are to begin and finish in 2015 and that the new instrument should be applicable to all parties from 2020.[605] This decision is unclear and vague. Perhaps more discussions on its exact meaning and scope will continue in the subsequent COPs in order to generate a common understanding of the scope of the decision.[606] This is particularly so because clarity will be needed on how the 2015 legal instrument will be applicable to all parties and how the principles of equity and the CBDRRC will be applied. Although the Doha Climate Gateway references all of the elements of the Bali Action Plan (mitigation, adaptation, finance, technology development and transfer, capacity building, and transparency of action and support),[607] it is not clear how and to what extent these elements will be addressed under the ADP. This is also different from the Kyoto Protocol negotiating mandate, which specifically excluded any new commitments for developing countries.[608] However, the ADP does not provide an alternative approach to differentiation.

The common African position on the post-2015 climate change regime stresses the need for any future regime to be based on the established principles of equity and the CBDR and for such a regime to be fair, effective, flexible and inclusive.[609] Thus, it is important for the post-2015 regime under the ADP to balance developing countries' development objectives and their mitigation and adaptation responses, and for it to allow developing countries to reach their economic and human development goals. The Durban Platform must therefore aim at negotiating an instrument based on the principles of equity and the CBDRRC to come up with an ambitious legal instrument that balances the interests of vulnerable developing countries with those of developed countries.

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605 Bodansky D "The Durban platform: Issues and options for a 2015 agreement" 2012 *Center for Climate and Energy Solutions* 1-14.

606 Chacko 2012 *Conservation International* 3.

607 See UNFCCC Decisions 11/CP.18, 12/CP.18, 13/CP.18, and 14/CP.18.

608 Bodansky (2012) *Center for Climate and Energy Solutions* 6.

609 Lopes C "African common position on the post 2015 development agenda" 2012 *Economic Commission for Africa* 1-16.

3.3 The climate change regime and Africa

Of all regions of the world, Africa is the least well equipped to respond to the issues associated with climate change.[610] As said in Chapter Two, Africa has been plagued by several problems, ranging from wars and conflicts to environmental degradation, poverty and economic stagnation.[611] The potential impacts of climate change have exacerbated already existing threats to human wellbeing and have undermined efforts to achieve sustainable development.[612] Africa is therefore considered most susceptible to climate change due to its vulnerability and its inability to cope with the physical, human and socio-economic consequences of climate change.[613]

A general question may be raised as to whether the international climate change regime assists Africa to address and overcome the consequences of climate change and enhance sustainable development. The superficial answer may seem to be in the affirmative. However, if one takes the bigger picture into consideration, the international climate change regime does not adequately address Africa's needs. It has been observed that the present and future sustainable development of African nations will depend greatly on their ability to adapt to and handle existing and prospective climate change impacts.[614] However, the current international climate change regime does not adequately deal with Africa's issues in this regard.[615] African countries need adequate financial assistance, capacity building and technology development and transfer in order for them to be able to adapt to the consequences of climate change .

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610 Justice O *et al* (2005) "Climate Change in Sub-Saharan Africa: assumptions, realities, and future investments" 172.

612 Temitope A *et al* "Energy and climate change: Critical reflection on the African continent" 14/6 2012 *Journal of sustainable development in Africa* 84-96.

613 CIGL (2009) *Special report on climate change in Africa: Adaptation, mitigation and governance challenges.*

614 Temitope *et al* 2012 *Journal of sustainable development in Africa* 89..

615 Freestone 2007 "The challenges of implementing Kyoto mechanisms" 48.

3.3.1 Africa's vulnerability and the climate change regime

As seen in Chapter Two, there is general agreement in the climate change regime that the particular vulnerability of poor countries to the adverse effects of climate change impacts needs to be adequately reflected in the regime. Africa needs special attention based on the principle of equity.[616]

Article 4(4) of the UNFCCC states:

> The developed country parties shall assist the developing country parties that are particularly vulnerable to the adverse effects of climate change in meeting costs of adaptation to those adverse effects.

The current AWG-LCA text contains the list of vulnerable countries.[617] The list includes (i) poor developing countries; (ii) least developed countries (LCDs), small island developing states (SIDC), and countries in Africa affected by drought, desertification and floods; (iii) low-lying and other small island countries, countries with low-lying coastal, arid and semi-arid areas or areas liable to floods, drought and desertification, archipelagic countries, and developing countries with fragile mountainous ecosystems; and (iv) countries with unique biodiversity, tropical glaciers and fragile ecosystems.[618]

Thus, vulnerable countries would not be expected to undertake commitments beyond those already stipulated in the UNFCCC (cooperation and information exchange). Their schedules could register intended actions, including those that should benefit from additional international support.[619]

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616 Art 4(4) of the UNFCCC.

617 See AWG-LCA chairs negotiating text paragraph 31.

618 Schwarte C and Massawa E "Equity issues in the climate change negotiations" *2009 European Capacity Building Initiative* (ECBI) Policy Report 6 and Scholtz (2011) *South African Yearbook of International Law* 203.

619 See Arts 4(6), 4(8), 4(9) and 4(10) of the UNFCCC.

As a group, African countries need to build their adaptive capacity[620] in order to cope with the consequences of climate change. The IPCC 4th Assessment Report clearly identifies Africa as one of the most vulnerable continents to climate variability and change, because of its multiple stresses and low adaptive capacity.[621] However, the regime has been criticised for not adequately focusing on the implementation of adaptation in vulnerable countries.[622] There is also significant disagreement with regard to the institutional structure in which adaptation shold take place, the financial resources to be made available, and whether the adaptation framework under the regime is binding or not.[623]

The institutions and procedures of the UNFCCC are drawn from the UN system with the Conference of Parties as the policy-making body. It is assisted by two subsidiary bodies.[624] The COP 7 established three funds: the Least Developed Countries Fund (LDCF), the Special Climate Change Fund (SCCF), both under the UNFCCC, and the Adaptation Fund, under the Kyoto Protocol.[625] All of these funds were aimed at assisting and financing adaptation to climate change in countries particularly vulnerable to the adverse impacts of climate change.

The Global Environmental Facility (GEF) manages all the funds. One of the sources of the fund is a 2 per cent levy on carbon credit sales through the Kyoto Protocol's CDM.[626] Although priority is given to vulnerable countries, resources for adaptation are being mobilised in only modest proportions, mostly through multi-lateral donor funds

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620 Adaptation refers to coping with changes in processes, practices, and structures to moderate damages or to benefit from opportunities associated with such a change. Adapting to climate change entails taking the right measures to reduce the negative effects of climate change by making the appropriate adjustments and changes. See IPCC 2007.

621 IPCC Fourth Assessment Report 2007.

622 Boisson CL "United Nations framework convention on climate change" a paper available at http://www.un.org/law/avl (accesses on 12 December 2011).

623 Boisson (2011).

624 Depledge J and Yamin F "The global climate change: A defence" in Helm D and Hepburn C (eds) *Economic and politics of climate change* (Oxford University Press 2009) 433-453.

625 Schwarte C and Massawa E "Equity issues in the climate change negotiations" 2009 *European Capacity Building Initiative* (ECBI) Policy Report 7.

626 See also Art 12 of the Kyoto Protocol of 1997.

such as the UNFCCC GEF-administered LDCF, the SCCF and the Pilot Programme for Climate Resilience (PPCR).[627] Thus, these funds mostly depend on voluntary contributions by the developed countries, which are insufficient to meet Africa's adaptation needs.[628] Developing country parties criticise this institutional arrangement and suggest a more flexible institutional arrangement and binding financial commitments of Annex I countries based on the principles laid down in the UNFCCC.[629] COP 18 yielded limited results in terms of finance. The COP did not provide a guarantee for the US$100 billion that developing country Parties were expecting to get by 2020 under the Green Climate Fund (GCF).[630] Developed country Parties were encouraged to continue to provide finance between 2012 and 2015. However, only around US$500 billion in funding has been pledged for climate action post-2012, an amount which is very insufficient.[631]

The Doha Climate Gateway decision references all of the Bali Action Plan elements[632] including adaptation and finance , making possible a robust ADP discussion moving forward, but it is not clear how or to what extent these elements will be addressed. With finance discussions under the LCA coming to an end, one of the key expectations of the COP 18 was to find a permanent and high-level solution for more streamlined finance negotiations under the ADP.[633] Currently, the ADP does not provide an assurance that finance will be a pillar of the 2015 legal instrument on climate change.

3.3.1.1 Technology transfer and CDM

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627 This information is available at http://www.cms.unfccc.int/preview.php?id=5919 and http://www.climatefinanceoptions.org/.

628 AMCEN (2011) 141.

629 Art 3 of UNFCCC. See also, Sullivan K "Technology transfer and climate change: Additional considerations for implementation under UNFCCC" 2011 7/1 *Law, Environment and Development Journal* 1-17 and Cox G "The clean development mechanism as a vehicle for technology transfer and sustainable development: A myth or reality?" 2010 6/1 *Law, Environment and Development Journal* 179-198.

630 Chacko (2012) *Conservational International* 3.

631 Chacko (2012) *Conservational International* 4.

632 UNFCCC Dec.3/CP.18.

633 Temotope *et al* (2012) *Journal of Sustainable development in Africa* 93.

The Clean Development Mechanism (CDM)[634] was established under the Kyoto Protocol[635] with the aim of assisting developed country parties in achieving their emission targets and creating new opportunities[636] for developing countries to access green technology and funding.[637] Wilkins argues that the CDM is a masterpiece of compromise because it reconciles two seemingly opposing positions, and enables resource transfer from North to South.[638]

The CDM became operational in 2006 and has registered more than 1800 projects world-wide.[639] At present there is a concentration of CDM projects in Asia, with China alone accounting for 60 per cent of the credits on the market.[640] Africa, in contrast, hosts less that 4 per cent of registered projects.[641] Whilst Annex I countries have earned certified emission reduction units, CDM projects have generated only limited benefits for developing countries, especially Africa.[642]

Although the host country has to confirm that the project activity assists it in achieving sustainable development, there is no guidance as to how this should be assessed.[643] Thus, CDM projects often represent the cheapest emission reduction approach available and have raised concerns about their negative social impacts and their lack of additionality.[644]

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634 The CDM is one of the three flexibility mechanisms established under the Kyoto Protocol of 1997. The others are Joint Implementation and Emission Trading. See Arts 6 and 17 of the Kyoto Protocol respectively.

635 Art 12.

636 Access to green technology and financial assistance.

637 Sullivan (2011) *Law, Environment and Development Journal* 1.

638 Wilkins H "What is new in CDM?" 2002 11 *Review of European Community and International Environmental Law* 144.

639 Cox (2010) 6/1 *Law, Environment and Development Journal* 180.

640 Conti (2010) *Harvard Project on International Agreements* 4.

641 Conti (2010) *Harvard Project on International Agreements* 4..

642 Schwarte and Massawa (2012) 11.

643 Cox (2010) *Law, Environment and development Journal* 187.

644 Cox (2010) 187.

One of the purposes of the CDM is to assist developing countries to achieve sustainable development.[645] For Africa to achieve sustainable development, it requires technology transfer, capacity building and financial assistance. However, the economic driver for the CDM is not technology transfer *per se* but the generation of CERs to assist developed countries to close gaps in their Kyoto commitments.[646]

However, scholars highlight some of the institutional barriers (on the part of Africa) to what might be termed sustainable technology transfer.[647] Olawuyi, for instance, examines the particular challenges facing the CDM in Africa,[648] which include the absence of dedicated Designated National Authorities (DNA) for the CDM, the lack of well-defined CDM master plans to guide investment, the lack of good governance, and the need for capacity building.[649] For instance, it is the task of the DNA of the host country to decide if a proposed CDM project contributes to the country's sustainable development priorities.[650]

Another problem which faces Africa in attracting CDM projects is the state of African countries' economic development.[651] African needs are still focused on infrastructure development whereas investors may have interests in other sectors. Basic economic development may be a pre-requisite for substantial energy-saving projects.[652]

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645 Art 12(2) of the Kyoto Protocol of 1997.

646 Cox (2010) *Law, Environment and Development Journal* 195.

647 "Sound technology transfer" means technology transfer that is more than a one-off transfer of equipment, know-how or both to the host developing country but generates indigenous and lasting embedding of this technology in the host country. See Cox (2010) *Law, Environment and Development Journal* 195.

648 Olawuyi DS "Achieving sustainable development in Africa through the CDM: Legal issues considered" 2009 17 *African Journal of International and Comparative Law* 270, 293-300.

649 Olawuyi (2009) *African Journal of International and Comparative Law* 298.

650 Boyd E *et al* "The clean development mechanism: An assessment of current practice and future approaches for policy" 2007 Tynadall Center Working Paper 114 *Tynadall Center for Climate Change* 71.

651 Gray and Gupta (2003) 'Climate change regime and Africa" 73.

652 Grau and Gupta (2003) 74.

The competition among non-Annex I countries to attract CDM investment could also lead to competition where sustainable development goals are set lower to create favourable conditions for investment. The lack of a common standard is seen as a problem as well.

As for the unequal distribution of CDM projects, funding for capacity building is potential for Africa.[653] Efforts should be put into capacity building in the poorest countries of Africa in order to help strengthen DNAs.

For CDM to achieve emission reduction and sustainable development, it should include socio-economic and development indicators such as sustained economic growth, poverty eradication, social development, meeting basic needs, real and meaningful technological transfer, awareness and capacity building, and intra- and intergenerational equity.

CDM is considered a success despite of the criticism. The measure of its success lies in the fact that it helps to create a global partnership between developed and developing countries, providing for an opportunity to share the requisite technology and funding.[654] It has helped to leverage funds for renewable energy technologies and other emission-reducing activities.

3.4 Concluding remarks

This chapter has presented an analysis of the international climate change legal regime and its relation to Africa. It has been observed that climate change is a global issue which, if not carefully addressed, may hinder growth and economic development in Africa. As a global problem, climate change may adversely impact the entire African

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653 Paulsson E "A review of the CDM literature: From fine tuning to critical scrutiny?" 9 2009 *International Environmental Agreements* 72. Funding for capacity building has gone mainly to countries with perceived potential for providing cost effective CERs.

654 Freestone 2007 "Introduction - the challenges of implemeting the Kyoto mechanisms" 52.

continent. Africa's slow economic development, extreme poverty and dependence on primary sectors mean that it has a limited capacity to adapt to the adverse impacts of climate change.[655]

While climate change has made new challenges emerge for African countries, the international climate change regime, if improved, could provide a solution to some of the adaptation needs which are pertinent for Africa.[656] Climate change adaptation is particularly important for Africa, since African countries are already suffering from the consequences of climate change as scientifically predicted.[657] The international climate change regime should therefore provide permanent and viable solutions pertaining to funding, technology transfer and capacity building, based on the CBDR, equity, and special/vulnerability principles of the UNFCCC. The Durban Platform for Enhanced Action (ADP) track should prioritise elements of the Bali Action Plan (adaptation, finance, capacity building and technology transfer) and should clearly stipulate how and to what extent they will be implemented.

However, African countries should improve their governance and institutional issues in order to create a suitable environment for adaptation and technology development and transfer. [658] Most African countries have institutional and policy frameworks that are insufficient to deal with environmental degradation and disaster management. [659]

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655 Boko M *et al* 'Africa' *441*.
656 Gray & Gupta *UN Climate Change Regime and Africa* 70.
657 See Chapter Two of this work.
658 See Mwembaza *Climate Change and the International human rights frameworks in Africa* 227
659 Mwembaza (2009) 228.

CHAPTER 4: REGIONALISM AND REGIONAL INTEGRATION IN AFRICA

Contents of this chapter

4.1	Introduction	129
4.2	Globalisation and regionalism in Africa	130
4.3	Regionalism and regional integration: definitions and theories	132
4.3.1	Theories of regionalism	133
4.3.2	Theories of regional integration	136
4.3.2.1	Functionalism	136
4.3.2.2	Neo-functionalism	138
4.3.2.3	Inter-governmentalism	140
4.3.3	The principles of state sovereignty and subsidiarity	143
4.3.3.1	State sovereignty	143
4.3.3.2	The subsidiarity principle	145
4.4	Regionalism and integration in Africa	149
4.4.1	Regionalism versus African regional integration	150
4.4.2.1	The Abuja Treaty of 1994	150
4.4.2.2	The Constitutive Act of the AU of 2002	153
4.4.2.3	The protocol on relations between the AU and RECs of 2007	154
4.5	Concluding remarks	161

4.1 Introduction

Regionalism is the process of building multilateral organisations to address the common interests of states such as issues relating to security, and the political, environmental and economic interactions among states.[660] African regionalism dates back many decades,[661] but the progress achieved so far, both from a sub-regional and a continental perspective, is inadequate.[662]

Although the 1994 Treaty Establishing the African Economic Community (the Abuja Treaty), the 2002 Constitutive Act of the African Union (the AU) and the Protocol on the Relations between the AU and the Regional Economic Communities (the RECs) strive to strengthen African integration, there are still lots challenges. These include overlapping membership, the lack of clear principles of coordination among African RECs, the poor implementation of key decisions and protocols, and an inadequate legal and institutional structure on integration.[663]

This chapter aims at discussing regionalism and regional integration in Africa with a view to examining the efficacy of African regional integration in addressing the common challenges facing the continent. It is argued that regionalism is a part or *the* consequence of globalisation. The chapter examines key obstacles to realising Africa's integration, in the context of the way the process is governed. First, it highlights theories of regionalism and regional integration in order to assess whether they have important bearing in the African integration process. Second, the chapter discusses regionalism and African integration highlighting the contradictions and weaknesses of African regionalism and what could be the way forward.

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660 Khadiagala GM "Governing regionalism in Africa: Themes and debates" 2008 *Policy Brief* 51.

661 Ginther K "Re-defining international law from the point of view of decolonisation and development and African regionalism" 1982 *Journal of African Law* vol 26 issue 01 49-69.

662 Gandois H *Regionalism, a solution for the weak? A case study on Africa* (2009 University of Oxford) 2 and Oppong RF "The African Union, African economic community and Africa's regional economic communities: Untangling a complex web" 2009 17 *African Journal of International and Comparative Law* 1.

663 Gandois (2009) *Regionalism, a solution for the weak? A case study on Africa* 5.

4.2 Globalisation and regionalism in Africa

Giddens defines globalisation as "the intensification of worldwide social relations which link distant localities in such a way that local happenings are shaped by events occurring many miles away and vice versa".[664] This scholar further argues that globalisation is a consequence of modernisation.[665]

Theorists of globalisation[666] view the world as moving into or already having entered a new phase. Hirst and Thompson argue that "...we live in an era in which the greater part of social economies and national borders, cultures and economies are dissolving."[667]

Central to globalisation is the notion of rapid process of economic globalisation. This is the most important component, because it is the driving force towards cultural and political globalisation.[668] Economic globalisation involves the internationalisation of the world economy.[669] Scholars in favour of economic globalisation argue that uncontrollable market forces and transnational corporations have come to dominate the basic dynamics of the world global economy.[670] These transnational corporations owe allegiance to no nation-state and locate wherever in the globe market advantage dictates.[671]

A discussion on the global economy suggests that a truly global economy has emerged or is emerging in which distinct national economies and domestic strategies of national

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664 Giddens A *The consequences of modernity* (1990 Polity Press: Cambridge) 64.

665 For a detailed discussion and explanation of globalization and Africa see Mulinge MM and Munyae MM "Globalisation and sustainable development in Africa" in Assefa T, Rugumamu SM and Ghaffer MA eds *Globalisation, democracy and development in Africa* (2001 Organisation for Social Science Research in Eastern and Southern Africa: Addis Ababa) 101-119.

666 See Twining W *Globalisation and legal theory* (2000 Cambridge University Press) 51-90.

667 Hirst P and Thompson G *Globalisation in question of international economy and the possibilities of governance* (1996 Polity Press Cambridge) 1.

668 Mulinge and Munyae (2001) Globalisation and sustainable development in Africa 105.

669 Mulinge and Munyae (2001) 105.

670 See Hirst and Thompson (1996) 66.

671 Hirst and Thompson (1996) 66

economic management are becoming increasingly irrelevant.[672] According to Hirst and Thompson, the dominant feature of international economy is that processes determined at the level of national economies still dominate and international phenomena are outcomes that emerge from the distinct and differential performance of national economies.[673] An accelerated pace of Interdependence and interconnectedness is the characteristic of globalisation.[674] One of the main features of this interdependence is the rise of regionalism. As such, regionalism is part of globalisation.[675] In this context, regional integration is an imperative factor in terms of enhanced competitiveness in global trading and the consolidation of economic and political reforms.[676]

However, various scholars argue that both globalisation and regionalism are ambiguous concepts which elicit different interpretations from different commentators, depending on what empirical phenomena are singled out for scrutiny, and what kind of theoretical framework is employed to interpret them. The focus of this work is not on undertaking a detailed examination and scholarly discussion of the relationship between regionalism and globalization in Africa save to observe that the two processes may be regarded as antagonistic and complementary. Different speeches of Heads of State and Government, both in Sirte and Algiers, carried the view that the construction of a large and integrated AU is the only efficient response to the challenges of globalization.[677] This response has manifested itself, in part, in the decision to embrace a new, reinvigorated regionalism as the basis for coordination and cooperation among African States. The question remains how the AU can best use its position to facilitate coordination and foster cooperation among its member States in addressing major regional problems including the consequences of climate change.

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672 Hirst and Thompson (1996) 197.

673 Hirst and Thompson (1996) 10.

674 Diamond J *Guns, germs and steel: The fates of human societies* (1997 Norton London) 140.

675 Aghemelo AT "Africa and globalization: A case for regional integration and poverty reduction" 2009 Vol 4 No. 1 *Journal of Humanities, Social Sciences and Creative Arts* 49-54.

676 Ndomo A "Regional economic communities in Africa: A progressive overview" 2009 *A Study Commissioned by EGT* Nairobi.

677 See Amin S "Regionalisation in response to polarising globalisation" in Hettne *et al* 54

4.3 Regionalism and regional integration: definitions and theories

According to Anthony Payne, regionalism is a "states-led project designed to recognize a particular regional space along defined economic and political lines".[678] And Grugel and Hout assert that regionalism "is a states-led project which has the aim of reorganizing its particular geo-economic space".[679] However, some scholars disagree with this definition, arguing that it is too narrow. For example, Boas *et al* argue that:

> regionalism is clearly a political project, but it is obviously not necessarily states-led, as states are not the only political actors around and that within each regional project, several competing regionalism actors with different regional visions and ideas coexist.[680]

Boas *et al* believe that although states are the most important and powerful actors in the process, that does not necessarily mean that non-state actors have to be ignored.[681] This concept is now known as "new regionalism".[682]. In contrast to classical regionalism, the new regionalism involves non-state actors and is more open and more comprehensive.[683] Alternatively, regionalism is said to refer "to the growth of societal

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678 Payne A 'Globalisation and modes of regional governance' in Held D and McGraw A eds *The global transformation reader: An introduction to the globalization debate* (2003 Polity Press Cambridge) 213

679 Grugel J and Hout W 'Regionalism and the South' in Grugel J and Hout W eds *Regionalism across the north-south divide: State strategies and globalization* (1999 London Routledge)10

680 Boas M, Marianne H and Shaw TM 'Introduction: Theories of new regionalism' in Soderbaum F and Shaw TM *Theories of regionalism: a Palgrave reader* (2003 New York Palgrave Macmillan) 8-9

681 See Maluwa 2002 'Reimagining African unity' 13

682 Although states are most often the regionalizing actors, NGOs, new social movements, media, companies and a range of other actors form an important part of the concept.

683 Most of the literature on regionalism since the 1990s refers to two main waves of regionalism identified as *old* and *new*. The 1990s witnessed a resurgence of regionalist projects worldwide, often referred to as"new regionalism". The "old" and the "new" regionalism, according to Hettne, may be distinguished in the following respects:
(a) Whereas, the old regionalism was formed in a bipolar Cold War context, the new is taking shape in a more multipolar world order.
(b) Whereas the old regionalism was created "from above" (by super powers), the new is created by a more spontaneous process "from within".
(c) Whereas the old regionalism was specific with regard to objectives, the new is more comprehensive and is a multidimensional process.

integration within a region and to the often undirected processes of social and economic interaction," 'a process previously described as informal integration but nowadays known as soft regionalism.[684]

Thus, regionalism encompasses efforts by groups of nations to enhance their economic, political, social, or cultural interactions. Such efforts can take different forms, including regional cooperation, market integration, development integration and regional integration. These theories of regionalism are explored below to explain their application in the African regional context, particularly with regards to responding to major environmental challenges such as the effects of climate change.

4.3.1 Theories of regionalism

As outlined above, theories of regionalism can be divided into regional cooperation, market integration, development integration, and regional integration. This section explores the main tenets of each theory in order to examine how African regional integration could be a useful tool to foster sustainable development.

"Regional cooperation theory" is a collaborative venture between two or more partners with common interests in a given issue.[685] Such ventures can include, for example, the execution of joint projects, cooperation in the technical sector, the common delivery of services and policy harmonization, the joint development of common natural resources,

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See Hettne B "Global market versus the 'new regionalism'" (2003) 362. For a detailed description of the differences between the old and new regionalism see Hettne B "Globalisation and the new regionalism: the second great transformation" 7-8.

684 Hurrell A "Regionalism in theoretical perspective" in Fawcett L and Hurrell A eds *Regionalism in world politics: Regional organization and international order* (Oxford University Press 199) 539.

685 For a critical analysis of regional cooperation see McCarthy C "Regional integration in sub-Saharan Africa: past present and future" in Oyejide A, Ndulu BN and Greenway D eds *Regional integration and trade liberalization in sub-saharan Africa vol 4* (1999 London Macmillan) and Lyakurwa W, Ng'eno N and Kennes W "Regional integration in sub-Saharan Africa: A review of experiences and issues" in Oyejide A, Elbadawi I and Collier P eds *Regional integration and trade liberalization in sub-Saharan Africa Vol 1: Framework issues and methodological perspectives* (1997 London Macmillan).

taking a joint stand towards the rest of the world, and/or the joint promotion of production.[686]

On the other hand, "market integration theory" which can consist of progressive degrees of integration. These include a free area where tariffs are removed between member states, but each country retains its own tariffs against non-members; a customs union where the free trade area remains in place and member states impose a common external tariff against non-member states; a common market where the customs union remains in place along with the free flow of the factors of production (capital and labour); economic union, which consists of a common market along with the harmonization of monetary and fiscal policies; and total economic integration, which consists of a common market along with the unification of monetary and fiscal policies.[687]

"Development integration theory" was developed in response to problems created by the application of market integration theory. According to this theory, the objective of integration becomes economic and social development, and it is therefore linked with development theories.[688] Development integration requires more state intervention than market integration. States must first and foremost make a political commitment to integration, since such commitment is seen as laying the foundation for cooperation.[689] This helps member States to work towards implementing policies that solve problems created as a result of the unequal distribution of benefits, which is one of the major causes of the failure of market integration. With a view to providing a remedy for the

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686 Payne (2003) "Globalisation and modes of regionalist governance" 214

687 Balassa BA *The theory of economic integration* (1961 Homewood Illinois Richard Dale Inc) 1. According to this theory, the welfare gains from integration are based on the notion of trade creation and trade diversion. The former takes place when there is a shift from a high shift, less efficient regional producer to a low cost, more efficient regional producer. For a detailed analysis of trade creation and trade diversion, see Gerber J *International economics* (Addison-Wesley Reading 1999) 221-222.

688 Robson P *The economics of international integration* 2nd ed. (George Allan and Unwin London 1980) 3

689 Haarlow J *Regional cooperation and integration within industry and trade in southern Africa: General approaches* SDCC and the World Bank (Averbury Aldershot 1997) 16.

unequal distribution of benefits, policies that are of a compensatory and corrective nature are implemented.[690]

The last theory to be outlined in this section is "regional integration theory". This is defined as "a process by which a group of states voluntarily and in various degrees" have access to each other's markets[691] and establish mechanisms and techniques that minimize conflicts and maximize the internal and external economic, political, social and cultural benefits of their interaction.[692]

The African paradigm is that of linear market integration, following stepwise integration of goods, labour and capital markets, and eventually monetary and fiscal integration.[693] The starting point is normally a free trade area, followed by a customs union, a common market, and then the integration of monetary and fiscal matters to establish an economic union. The achievement of political union features as a final objective in many African regional integration plans.[694]

The SADC and EAC integration plans are good examples of Africa's integration, reflecting the linear integration model with ambitious targets. However, although free trade areas and custom unions seem to be predominant in Africa integration plans, many African countries lack the industrial capacity for diversified manufactured goods to support trade.[695] Other challenges are the low level of technological capability, inefficient government bureaucracy, an inadequately educated workforce, and a lack of

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690 Gibbs D "Regional development agencies and sustainable development" 2010 32/4 *Regional Studies* 365-368.

691 See Payne (2003) "Globalisation and modes of regionalist governance" 20.

692 For a detailed explanation on regionalization in Africa see Taylor I "Globalization and regionalization in Africa: Reactions to attempts at neo-liberal regionalism" (2003) *Review of International Political Economy* 10/2 310-330

693 Gibbs 2010 *Regional Studies* 367. Hartzeberg T "Regional integration in Africa" 2011 Staff Working Paper *Trade Law Center for Southern Africa.*

694 Economic commission for Africa "Assessing regional integration in Africa" 2010 available at http://www.uneca.org/area4/index.htm (accessed on 29 July 2013).

695 . Hartzeberg T "Regional integration in Africa" (2011) 10.

access to finance.[696] Thus, an improvement in infrastructure and structural transformation would be key processes in triggering sustainable growth. These should go hand in hand with integrating environmental and economic policy through policies for sustainable development.[697]

4.3.2 Theories of regional integration

This section discusses a few theories of regional integration, focusing primarily on the realist and liberal traditions in their original and transformed versions. This approach is necessitated by the relationship between African RECs and the AU on the one hand, and the AU and RECs with member states on the other. Thus, this section explores the utility of these theories in explaining Africa's regional integration and the problems confronting the continent in achieving regional integration.

4.3.2.1 Functionalism

According to the functionalist theory, in a world of economic interdependence, social, economic, technical and humanitarian political problems could be prioritized and solved. The theory contends that common economic interests create the need for international institutions and rules.[698] The assumptions that inform the theory emphasize a practical approach to problem solving, insisting that problems can be solved by prioritizing areas of common interests, while concluding that cooperation in economic and social fields may eventually spill over into political fields.[699]

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696 Economic commission for Africa 2010.

697 Gibbs (2010) *Regional Studies* 368 and Beccerke J and Tirole J "Regional initiatives and the cost of delaying binding climate change agreements" 2011 95 *Journal of Public Economics* 1339-1348.

698 For an overview of the early works against realist theoretical assumptions in international relations and attempts to overcome the fear of war through functional cooperation see Haas EB *The uniting of Europe: Political social and economic forces 1950-1957* (University Press Stanford 1958).

699 For a summary of the theoretical underpinnings of functionalism; see also Rosamond B *Theories of European integration* (Macmillan Press Ltd London 2000).

Pessimists point out the setbacks involved in a regional integration programme due to the reluctance of member states in a regional organisation to transfer sovereignty to a higher level, particularly in areas of strong national interests.[700] For them, this condition would only reproduce a supra-national body with state-like functions and be dominated by the most powerful states.

They point also to the inadequacy of the logic of spill-over, since there is no guarantee that functional cooperation will prevent or entirely separate social, technical or economic problems from the political.[701] The theory, they say, also lays too much emphasis on technocratic logic to the detriment of the importance of politics, and has been dismissed by them for its "poor record of prediction".[702]

The wholesale application of the thesis of functionalism in the examination of Africa's attempts at regional integration and their shortcomings may not be entirely useful, as cooperation in the social, technical and economic fields has not so far automatically yielded increased dividends in other areas within the communities. Further, one major setback bogging down Africa's RECs remains the reluctance of member states to transfer decision-making powers to the regional body.[703] The power to make decisions still lies squarely with the national governments of member states.[704]

Due to the inability of the sub-regions to negotiate and enforce laws, the national governments of member states often decide whether or not to enforce RECs' treaties

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700 See Pollack MA "International relations theory and European integration" 2001 *Journal of Common Market Studies,* 39 (2), 221-44 and Hansen RD "European integration: Reflections on a decade of theoretical efforts" 1969 21(2) *World Politics.*

701 Moravcsik A "Introduction: Integrating International and domestic theories of International bargaining" in Jacobson EHK. & Putman RD (eds) *Double-edged diplomacy* (University of California Press Berkeley 1993) 3-42.

702 Marks G, Hughes L & Blank "European integration from the 1980s: State-centric v multi-level governance" 1996 *Journal of Common Market Studies, 134 (3).*

703 For example, only six States have made a declaration under the protocol establishing the African court on human and peoples' rights allowing their NGOs and individuals to file cases in the African court for the violation of human rights.

704 See Mulat T "Multilateralism and Africa's regional economic communities" (2006) 760 and Shaw T M "New regionalisms in Africa in the new millennium: Comparative perspectives on renaissance, realisms and/or regressions" in Shaw B, Hughes C W Phillips N & Rosamond B (eds) *New regionalisms in the global political economy* (Routlege London 2002) 177-189)

and protocols. The success of functionalism within the framework of Africa's integration is therefore severely limited, as the basic ingredients for its success are absent. There is no guarantee that people and governments will always move in rational directions.

In reality, the functionalist theory provides an insight into the operations of international organizations by successfully tracing the origins of international cooperation to functional interdependence. Its sectoral approach to cooperation and the recognition of non-governmental and trans-national actors in the international system remains useful, however, only if the actors consistently harmonize their interests by compromising on their differences and reaping the mutual benefits without downgrading nation-states as important actors.[705]

4.3.2.2 Neo-functionalism

Neo-Functionalists seek to refine the functionalist assumptions, as clearly demonstrated in Ernst Haas' work *The Uniting of Europe*, and do so in terms of three main processes – the actors, the motives, and the process and context. In order to avoid the pitfalls of functionalism, the new theory upgrades the importance of nation-states by insisting that states are the primary actors in an integration process, within which are interest groups and political parties.[706]

In the view of neo-functionalists, society is composed of various groups of interests, and the integration process would better satisfy them. Essential for the neo-functionalist theory is the idea of spill-over, according to which integration would spill over from the economic to the political, and the result would be an integrated union of states (and their

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705 For a summary of the reformation of the functionalist theoretical assumptions and the "concordance system", see Donald P "Institutionalism, Intergovernmentalism and European integration" 1999 *Journal of Common Market Studies* 37(2)317-331.

706 For a detailed account of the Neo-functionalist theoretical assumptions, see, Haas EB. *The uniting of Europe* (Cambridge University Press 1958).

societies) which would acquire the characteristics of "domestic political systems".[707] Another key element is the existence of a high authority (above the nation states) which would give the integration process the right direction. A supra authority which wrongly guides member states would, in the view of neo-functionalists, be the element that drives a given union to failure.[708]

The integration process would be led by technocratic elites and therefore governance of the union would not be based on ideological grounds, but on pragmatic satisfaction of interests and on technocratic expertise. Haas, the founding father of neo-functionalism, based his initial thesis on the idea of loyalty. In this sense, political spill-over would be accomplished through a process of loyalty transference from the nation state to the supra authority (or authorities).[709]

The second process is based on the belief that goodwill and the pursuit of common interests or common good would ultimately lead to greater integration. "The process of community formation is dominated by nationally constituted groups with specific interests and aims willing and able to adjust their aspirations by turning to supra-national means when this course appears profitable."[710]

Neo-functionalists insist that the idea of spill-over assumes that "member states' economies are reasonably interdependent before the emergence of the integration programme".[711] They view integration as an outcome of joint action by all parties as problems in one area can be solved only through recourse to action in other sectors. This is to be achieved by the upgrading of common interests under the guidance of a regional supra-national body. Finally, neo-functionalists contend that the context in

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707 Haas EB "Is there a hole in the whole? Knowledge technology interdependence and the construction of International regimes" 1975 *International Organization* 29 (3).

708 Hansen RD "European integration: Reflections on a decade of theoretical efforts" 1969 *World Politics* 21.

709 Rosamond B *Theories of European Integration* (MacMillan Press Ltd London 2000) 140.

710 See Haas E (1958) 82.

711 Pollack MA "International relations theory and european integration" 2001 *Journal of Common Market Studies,* 39 (2) 221-44.

which integration takes place is economic, social and technical and to a lesser extent political, but assume that joint activities in the non-political areas would gradually permeate the political. Lindberg illuminates the conditions necessary for the success of the neo-functionalist hypothesis.[712]

Further, the usefulness of the hypothesis in understanding Africa's integrated organisations and their shortcomings is limited because in the first place the core preconditions for the successful adaptation of the neo-functionalist blueprint are not in place. Economic interdependence and strong and focused political parties and technocrats are yet to materialize in Africa. This work agrees that effective institutions can enhance the integrative momentum in Africa, but only to the extent that the structural imbalances inherent in the economies of member states are rigorously addressed to achieve meaningful interdependence within the integrating group.

It seems quite obvious that the tasks assigned to RECs' institutions are not expansive enough and that the organizations' institutions lack the capacity and enabling political power[713] to initiate social and economic processes beyond their normal mandate to warrant effective application and/or adaptation of the neo-functionalist framework to their integration programme.

4.3.2.3 Inter-governmentalism

The theory of inter-governmentalism conceptualises integration as "a series of bargains between the heads of government of the leading states in a region."[714] Its basic assumption is that integration takes place within domestic politics and is entirely a

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712 For a summary of the preconditions for the proper functioning of the neo-functionalist hypothesis, see, Lindberg, NL The *political dynamics of European economic integration* (Stand ford University Press 1963) 10.

713 See Scholtz W "Review of the role, functions and terms of reference of the SADC Tribunal" *SADC Law Journal* 2011 197-201.

714 Moravcsik A "Preferences and power in the European community: A liberal Intergovernmentalism approach" 1993 *Journal of Common Market Studies* 31(4) 19-56.

logical consequence of intergovernmental negotiations. The importance of supra-national institutions in the process of integration is downgraded in this theory.

An intergovernmental view was put forward by Putnam in the context of the EU, who viewed integration (governance) as a two-level game played by the member states. At the national level office holders build coalitions among domestic groups while at the European level they bargain in ways that enhance their position at the domestic level by satisfying the demands of key interest groups.[715]

Putnam's view assumed that converging interests within an integration process are essentially the interests of large states characterized by "multiple channels of access," where harmony is maintained within the union by the big states buying off the small ones. However, the theory contends that weak states would need international institutions as they are confronted with more expansive and complex issues.

Inter-governmentalism, and particularly Moravcsik's thesis, was argued as somehow strengthening neo-functionalist beliefs. Lindberg, for example, states that member states' behaviour in negotiations at the European level gaining autonomy and space for manoeuvre in relation to their domestic constituencies could also account for the establishment of the European Commission.[716] The basic assumptions of inter-governmentalism placed too much emphasis on heads of states as major players in the integration process without due regard to the importance of several behind-the-scene events that take place before inter-state bargains are sealed. Lindberg believes that the theory fails in its lack of explanatory power and core preconditions from which hypotheses could be generated. Further, the theory's "two-level game analogy seems

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715 For a detailed explanation of the basic contentions of the intergoverntalist tradition, see, Grieco J "Anarchy and the limits of cooperation: A realist critique of the newest liberal institutionalism" 1988 *International Organization* 42[3] 485-508 and Keohane RO *After hegemony: Cooperation and discourse in the world political economy* (Princeton University Press 1984) 7.

716 See Moravcsik (1993) "Preferences and power in the European community: A liberal Intergovernmentalism approach" 26.

too simplistic," while at the same time it could not be "tested empirically and should be seen as an approach rather than a theory".[717]

The theory's application to the examination of Africa's integration is limited. First, the leadership elite in many of the member states of the AU and Africa's RECs lacks the necessary bargaining skills, while the region is too fraught with frequent changes of government to allow for sustained bargaining between governments. The stability in policies and commitment vital to the achievement of meaningful integration is absent.[718] Finally, the theory's transformation and sharpening into liberal inter-governmentalism based on the two-pronged approach to integration does not go a long way in accounting for African integration.[719] Its assumptions that the constraints and opportunities imposed by economic interdependence shape national preferences or that the outcomes of inter-state bargains are the results of the relative strengths of the bargaining power of governments etc. do not hold much water in the arguments on Africa's integration.

First, the structure of the economies of the member states of the AU and the RECs are more or less not interdependent but highly competitive, since they produce basically a similar narrow range of products and therefore trade chiefly with countries outside the region. Second, the relatively poor bargaining power of the RECs or the AU member states in both the domestic and the international arenas negates the force of the assumption that relative strengths of bargaining power determines the nature of African RECs. Neither were the RECs a result of efforts to avoid high transaction costs nor of the desire to control domestic agendas.

Thus, the theories of regional integration (as discussed above) emphasize that cooperation in economic and social fields can eventually lead to regional integration,

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717 Wincott D "Institutional interaction and European integration: Towards an everyday critique of the liberal Intergovernmentalism" 1995 *Journal of Common Market Studies* 33[4] 597-609.

718 Relevant to this statement are the recent regime changes in the Northern and Western Africa generally and in Libya and Egypt in particular.

719 For a detailed explanation of the intergovernmentalist basic framework, see Grieco J "Anarchy and the limits of cooperation: A realist critique of the newest liberal institutionalism" 1988 *International Organization* 42[3] 485-508.

which may in turn foster closer and more meaningful cooperation on common issues. The discussion of these theories underlies the relationship between the AU and the RECs and the role which the RECs play in strengthening Africa's regional integration and achieving the anticipated AEC. These notional and theoretical concepts briefly set the stage for a better understanding of Africa's regional integration and how sub-regional integration could ensure sustainable development in the continent. This work supports the application of these theories, because they add value to the understanding of Africa's regional integration. Although none of the regional integration theories can explain African regional integration satisfactorily, they shed light on various aspects of the regional integration process, and may be helpful in understanding the whole. For example, the prevention of military conflicts and the establishment of the secured communities are relevant in all of the integration arrangements. No cooperation arrangement can be expected to last very long if the problem of international security cannot be solved.[720]

4.3.3 The principles of state sovereignty and subsidiarity

A brief discussion of the principles of state sovereignty and subsidiarity is engaged in below, in order to ascertain how they impact on Africa's integration process.

4.3.3.1 State sovereignty

State sovereignty is the power by which a state is governed and from which all specific political powers are derived.[721] It is the intentional independence of the state, combined with the right and power of regulating its internal affairs without foreign interference.[722] Sovereignty is the supreme legal authority of the state to give and enforce the law within

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720 Nzewi O "The challenges of post-1990 regional integration in Africa: Pan-African parliament" 2009 Policy Brief 57 *The Center for Policy Studies* 5.

721 Brownlie I *Public international law* 7th ed (Oxford University Press 2011) 289.

722 Kuwali D "The end of humanitarian intervention: Evaluation of the African union's right of intervention" 45 and Mbembe A "At the edge of the world: Boundaries, territoriality, and sovereignty in Africa" 2000 *Public Culture* 12/1 259-284.

a certain territory and in consequence, its independence from the territory of any other state and equality with it under international law.[723]

The traditional notion of sovereignty is that it is viewed as an impediment to deep regional integration in Africa.[724] Thus, the classical conception of state sovereignty is an absolute one that envisions the State with its territory unfettered by laws or other constraints and with laws applicable to extra territorial actions imposed only through its consent or the coercion of other states. In this context, state sovereignty constitutes two key elements: the competence to pass ultimate and binding decisions on certain matters, and the right to cede this competence to other bodies.[725]

Achieving regional integration objectives requires some ceding of States' power to the central supra-national institution. In this perspective, the union or community takes precedence over national interests. The Abuja Treaty states that, without prejudice, decisions and regulations shall be binding on member states, subordinate organs of the community, and RECs.[726] This means that sovereign states agree to abide by norms which are adopted at a higher level of organisation.

However, sovereignty and national concerns have caused member states of the AU and the RECs to become reluctant in their approach to integration because of the fear that integration may have unintended results which could undermine the sovereignty of their states.[727] Haas argues that although African regionalism may be propelled by unobtrusive and functional objectives, it has not followed the EU's pattern of spill-

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723 Morgenthau H *Politics among nations* (Alfred Knopf New York 1950) 249.

724 Nzewi (2009) *Center for Policy Studies* 6. For detailed discussion of the need to re-define state sovereignty to be able to pursue global solutions, see Scholtz W "Custodial sovereignty: Reconciling sovereignty and global environmental challenges amongst the vestiges of colonialism" 2008 *Nertherlands International Law Review* 323-341.

725 Mbembe (2000) *Public Culture* 267.

726 See Arts 10 and 13.

727 *Nzewi (2009) Center for Policy Studies 5.*

over.[728] The need to empower the AU and other organs is vital for integration in Africa. Intergovenmentalists prefer to see the process of integration entailing states "delegation" of their sovereignty to a supra-national body in order to achieve the benefits of effectiveness and efficacy.[729] The reluctance of African states to delegate sovereignty is caused by their need to protect state control at the national level. This is an impediment to the strengthening of the AU as a regional institution and of the RECs as key pillars of the AU.

4.3.3.2 The subsidiarity principle

Since the end of the Cold War it has become increasingly fashionable to suggest that regional organisations should play a more prominent role. This is often argued as an application of the principle of "subsidiarity".[730] However much may be said in favour of this principle as a general norm, it also has its pitfalls. Not only does this principle promote a prominent role for regional as opposed to global organisations; it also envisages a central role for organisations as such (as opposed to states) which some find unrealistic and/or undesirable. There is also a controversy over the compatibility of this role for organisations with hegemony — a concept which seems to increasingly acquire derogatory connotations which some regard as unwarranted.[731]
Subsidiarity theory entails that, where possible, decisions should be taken by the individual or the family, not by society at large; by the local community, not by the state; by the member states of a federation, not by the federation itself; and by the member

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728 Haas EB "The study of regional integration: Reflections on the joy and anguish of pretheorising" 1970 *International Organisation* Vol 24 No. 4 607-646. Spill-over (or the expansion of tasks) as proposed by Haas produces a conscious ingenious intervention of regional administrative and political elites to make power more centralized in institutions possessing "jurisdiction over the pre-existing national states".

729 Puchala DJ "Institutionalism, intergovernmentalism and European integration" A review article" 1999 *Journal of Common Market Studies* 37/2 317-331.

730 See Friesen M "Subsidiarity and federalism: An old concept with contemporary relevance for political society" 2003 *The Graduate Journal of Theory and Politics* 1:2 1-22.

731 Moller B "The pros and cons of subsidiarity: The role of African regional and sub-regional organisations in ensuring peace and security in Africa" 2005 *DIIS Working Paper no.4.*

states of Africa's RECs, not by the African Union itself.[732] It was introduced in the preamble of the Protocol on Relations between the AU and the RECs in order to regulate the relationships between the AU and the RECs.[733] The protocol emphasises:

> The need to define the role of the AU and RECs (in the integration process) taking into account the principle of subsidiarity thereby allowing the RECs to advance the integration agenda in specific areas.[734] This provision means that in exercising its powers, the AU should leave member states and RECs certain responsibilities, which are better performed by them.

The principle of subsidiarity is one of the most frequently pronounced concepts within a regional cooperation context. Besides European Union law, where it is one of the central principles (e.g. enshrined in the new Constitution for Europe signed in June 2004), the principle is also enshrined in international law,[735] defining certain roles for regional organisations. Chapter VIII of the UN Charter thus stipulates that:

> The Security Council shall, where appropriate, utilize such regional arrangements or agencies for enforcement action under its authority.[736] The Members of the United Nations shall make every effort to achieve pacific settlement of local disputes through such regional arrangements or by such regional agencies before referring them to the Security Council.[737]

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732 See Bothe M "The subsidiarity principle" in Dommen E (ed) *Fair principles for sustainable development* (Aldershot 1993) 123 and Edward E and Follesdal AF "Subsidiarity and democratic deliberation" in Eriksen EO and Fosum JE (eds), *Democracy in the European union: Integration through deliberation* (Routledge London 2000). Subsidiarity is a principle of organisation in social, economic, environmental and political fields.

733 Paragraph 2 of Art A reads: "This Treaty marks a new stage in the process of creating an ever closer union among the peoples of Europe, in which decisions are taken as openly as possible and as closely as possible to the citizen". The new Article 5 of the Maastricht Treaty states: "in areas which do not fall within its exclusive competence, the Community shall take action in accordance with the principle of subsidiarity, only if and in so far as the objectives of the proposed action cannot be sufficiently achieved by the member states and can therefore by reason of the scale or effects of those actions be better achieved by the Community".

734 See the preamble to the protocol on relations between AU and RECs of 2007.

735 On regional organisations and the UN see Weiss, Thomas G, David P, Forsythe & Rogert A *The United Nations and changing world politics* (Westview Press 1994) 33-36; Alagappa, M "Introduction" in Idem & Takashi I (eds) *International security management and the United Nations* (United Nations University Press Tokyo 1999) 269-294.

736 See Article 53 (1) of the UN Charter.

737 See Article 52 (2) of the UN Charter.

A number of considerations do indeed speak in favour of such a division of labour. For instance, in the case of an intra-state problem, adjacent countries are often more inclined to get involved because they almost inevitably suffer from the consequences of that problem, e.g. in the form of a flow of internally displaced persons because of drought or flooding, which are effects of climate change. Hence, states may be more likely to honour their obligations as members of a region or sub region, i.e. as neighbours, than as members of the international community, as doing so corresponds to their national interest.[738]

Furthermore, neighbouring countries can often be in a better position to comprehend a climate change or environmental problem than distant ones, as they often (but not always) share the same culture. Finally, the regional level of action is often most suitable for managing the problems of ethnic groups and nations "straddling borders", such as the Hutus and Tutsis of Central Africa, as well as for handling other border-transcending issues, such as shared rivers and similar environmental matters, cross-border migration and trans-border crime, and perhaps for dealing with border disputes.[739]

Thus, in the African integration process respecting the principle of subsidiarity is important in order to avoid overloading an already scarce sub-regional administrative capacity and resources, and to ensure that there is sufficient commitment and trust so that the key sub-regional agencies will be given the authority and means to implement sub-regional agenda. If these criteria are not met, the sub regional effort loses credibility, which in turn risks undermining future integration efforts.

Although the subsidiarity principle has the above positive aspects, its application in Africa can be criticised as follows.

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738 See Hettne B and Soderbaum F "Theorising the rise of regionness" in Brislin S, Hughes C W and Phillips N (eds) New *Regionalisms in the global political economy* (Routledge London 2002) 36.

739 Hettne and Soderbaum "Theorising the rise of regionness" 43.

First of all, regional or sub-regional organisations may either be missing or be too weak for the task of addressing climate change. Few other regions have as strong economic, political and normative foundations for regional collaboration as has Europe, where a particular form of regionalisation predominates, namely, regional integration. In most other parts of the world, and certainly in Africa, other and less ambitious modes of regionalisation are the best that can realistically be hoped for. By implication, to relegate the responsibility for such complicated matters as conflict prevention, environmental management and protection to such regional or sub-regional organisations may be a recipe for failure, as the requisite means may not be available at these levels, simply because of a general lack of resources affecting both the members and the organisation as such.[740]

Secondly, subsidiarity may come to be seen as a justification for what is really "buck-passing", i.e. for neglecting Africa (as well as most other parts of the developing world) and leaving the solution of its problems to the Africans themselves — even though it is not really obvious why, for instance, Mauritania should have a greater responsibility towards, say, Lesotho than any other UN member state. To thus devolve responsibility to Africans may, however, be very appealing to the developed world, for which Africa's importance is rapidly declining, thereby also making less and less foreign assistance available.[741]

Thirdly, what makes such buck-passing even less fair when applied to Africa is the fact that it will be the strong that are passing the buck to the weak, which have neither the economic nor the technical and resource capacity to shoulder the burden. For instance, even though Africa's share of the world's emissions of GHG is very low, Africa is still vulnerable to the impacts of climate change. This fact also relates to the imbalances

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740 See Shaw (2002) "New regionalisms in Africa in the new millennium: Comparative perspective on renaissance, realisms and/or regressions" 178.

741 See Marquardt J "The governance approach to European integration" 2001 *Fordham international Law Journal* 262.

which exist in Africa, where there the three kinds of economy in existence are the good, the bad, and the very bad, with the result that the region is very heterogenic.[742]

4.4 Regionalism and integration in Africa

The main purpose of regionalism and integration in Africa is to foster economic, social and cultural development in order to achieve a stronger bargaining base in global forums so that mutual benefit accrues to African states in the form of accelerated growth and development.[743]

However, in order to understand regionalism in Africa, one must be aware of the context of globalization in the region. According to Hettne:

> The process of regionalisation can only be understood within the context of globalization. To deal with regionalisation would be to miss the other side of the coin, which is globalisation.[744]

McGraw *et al* regard globalisation as a process that is transforming "the spatial organization of social relations and transactions".[745] The following section os this dissertation discusses globalisation and regionalism in Africa, as well as regionalism

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742 See Taylor I "Good governance or good for business? South Africa's regionalist project and the 'African renaissance'" in Brislin S, Hughes CW and Phillips N (eds) New Regionalisms in the global political economy (Routledge London 2002) 190-203; Saurombo A "The Role of South Africa in SADC regional integration: The making or breaking the organisation" 2010 vol 5 issue 3 *Journal of International Commercial Law and Technology* 124-131.

743 Khadiagala GM "Governing regionalism in Africa: Themes and debates" 2008 *Policy Brief* 51 1. Given the cross-cutting nature of climate change, addressing its adverse effects in Africa is important in order to achieve the economic goals of integration. See also Maruping M "Challenges for regional integration in sub-Saharan Africa: Macroeconomic convergence and monetary coordination" 2005 *Africa in the World Economy* available at http://www.fondad.org (accessed on 20 September 2013).

744 Hettne B "Editor's introduction" in Hettne B, Inotai A and Sunkel O *Globalism and the new regionalism* vol 1 (Macmillan Press 1999) 31.

745 Globalization generally refers to the "stretching of social, political and economic activities across political frontiers, regions and continents" and the intensification, or the growing magnitude, of interconnectedness and flows of trade, investment, finance, migration, culture, etc. See Held D, McGraw A, Goldblatt D and Perraton J "What is globalization" available at www.polity.co.uk/global/whatisglobalisation.asp (accessed on 20 August 2011).

and African regional integration, highlighting the legal and institutional weaknesses facing African integration.

4.4.1 Regionalism versus African regional integration

After the formation of the Organisation of African Unity (OAU), African states resolved the divisive debates about continetalism and sub-regionalism by recognising sub-regional regionalism.[746] Regionalism is a challenge to the external domination of Africa and is thus a means of reducing external vulnerability.[747]

The big challenge that faces African regionalism currently is how to build strong institutions to guide deep integration.[748] The AU is supposed to have a broader goal for integration in order to be able to provide viable guidance on integration issues.
Analysts and policymakers see the Abuja Treaty, the Constitutive Act of the AU, and the Protocol on Relations between the AU and the RECs, as important milestones in Africa's integration process.[749] However, there are a number of remaining challenges regarding legal and institutional arrangements such as Africa's governance structure relating to integration. There is the lack of an effective dispute settlement mechanism and a limited ceding of power by member states to supra-national institutions. Therefore, although some RECs and the AU may have some dispute settlement systems, their effectiveness is minimal. These challenges are discussed below.

4.4.2.1 The Abuja Treaty of 1994

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746 Khadiagala 2008 "Governing regionalism in Africa: Themes and debates" 1. Historically African regionalism has advanced through a contested process where states learn to cede sovereignty over long periods of interactions accross a functional sphere of economic cooperation.

747 Gandois (2009) 7.

748 Nzewi (2009) *Center for Policy Studies* 6.

749 Aghemelo (2009) *Journal of Humanities, Social Sciences and Creative Arts* 52.

In 1991 African states adopted the Treaty establishing the African Economic Community famously known as "the Abuja Treaty", which entered into force in May 1994.[750] The Abuja treaty was adopted under the auspices of the OAU, which was later succeeded by African Union (AU).[751] The Abuja treaty[752] envisages the creation of an African Economic Community over a period of 34 years[753] using six defined stages and building on the existing RECs,[754] which are called the "building blocks" of the AU.[755] The very first stage was supposed to involve the strengthening of existing RECs[756] and the establishment of new ones in regions of Africa where they did not exist already.[757] Article 88(1) of the Abuja treaty stipulates that the African Economic Community "shall be established mainly through the co-ordination, harmonisation and progressive integration of the activities of RECs." Thus, the specified gradual process would be achieved by coordination, harmonisation and the progressive integration of the activities of existing and future RECs.

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750 Oppong RF "The African union, African economic community and Africa's regional economic communities: Untangling a complex web" 2009 17 *African Journal of International and Comparative Law* 1.

751 See the preamble of the Protocol on relations between the AU and the RECs of 2008.

752 The Treaty Establishing the African Economic Community "the Abuja Treaty" of 1991. This Treaty was signed by heads of State and Government in 1991 and entered into force on 12 May 1994.

753 Art 6. See also AEC Economic and Social Commission, First Session, 11-12 June 1996. Strategy and Approach to the Implementation of the Treaty establishing the African Economic Community, (AEC/ECOSOC 3(1) Rev.1)

754 Khadiagala 2008 "Governing regionalism in Africa: Themes and debates" 2.

755 See the African Union decision on the Moratorium on the recognition ot regional economic communities, Assembly/AU/Dec.112 (VII) 2006.

756 The Economic Community of West African States (ECOWAS), the Southern Africa Development Community (SADC), the Common Market for Eastern and Southern Africa (COMESA), Arab Maghreb Union, the Economic Community of Central African States (ECCAS) and the Intergovernmental Authority on Development (IGAD). It should be noted that the membership of these RECs does not necessarily and completely coincide with membership of geographical regions of the AU into which Member States are divided: Central Africa, East Africa, North Africa, Southern Africa and West Africa. Moreover, there is also a considerable degree of overlapping membership between different organizations, with some countries belonging to as many as three different RECs, and some RECs drawing their membership from at least three different AU regions.

757 Article 3(b), (g) and (h).

Thus, Abuja Treaty[758] appreciates that the coordination and harmonisation of the policies and activities of the RECs are needed and that the task is supposed to be carried out by the continental body, the AU.[759] Article 4(1) stipulates that the objectives of the community shall be "to coordinate and harmonise policies among existing and future RECs in order to foster the gradual establishment of the Community,..." Article 88(1) expressly states:

> The community shall be established mainly through the coordination, harmonisation and progressive integration of the activities of regional economic communities. Member states undertake to promote the co-ordination and harmonisation of the integration activities of regional economic communities of which they are members with the activities of the community, it being understood that the establishment of the latter is the final objective towards which the activities of existing and future regional communities shall be geared.

The Abuja treaty creates important institutions such as the Pan-African Parliament (PAP)[760] and the Court of Justice.[761] The African Court of Justice was established in 1998 under the Abuja Treaty, but it never came into force. Ten years later it was replaced by the Protocol on the Statute of the African Court of Justice and Human Rights of 2008. However, although the Protocol establishing the court of justice and human rights has been open for ratification since 2008, it has still not come into force. To become operational the protocol requires ratification by fifteen States. To date, only three countries have ratified it.[762] Thus, the absence of an effective dispute settlement mechanism and the limited ceding of power by member states to the AU or RECs is an impediment to deep African regional integration.

Another challenge is the inability of the Abuja Treaty to prevent member states from belonging to more than one REC.[763] This is also the case with the AU Constitutive Act.

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758 The Treaty Establishing the African Economic Community of 1991.
759 See Arts 3, 4 and 88(1) of the Abuja Treaty, 1991.
760 Arts 7 and 14.
761 Arts 7 and 18.
762 Libya, Mali and Burkina Faso.
763 Asante SKB "Towards an African economic community" in Asante SKB and Nwonwu FOC eds *Towards an African economic community* (2001 Africa Institute of South Africa) and

Both of them open up the possibility for the establishment of further RECs.[764] Many African countries belong to more than one regional economic community.[765] If African integration were to be rationalised with minimum amount of overlap and less duplication of activities and programmes, member states would find it easier to implement the AEC.[766] Some scholars[767] argue that the Abuja Treaty marked the beginning of a significant but complex road towards full economic integration for Africa.[768] It certainly laid the foundation for structural reform of African integration. The Constitutive Act of the AU should have provided the tools necessary to begin its implementation

4.4.2.2 The Constitutive Act of the AU of 2002

The Constitutive Act states that the objectives of the AU shall be, *inter alia*, to:

> Achieve greater unity and solidarity between the African countries and peoples of Africa;[769] promote sustainable development at economic, social and cultural levels as well as the integration of African economies;[770] coordinate and harmonise policies between existing and future RECs for the gradual attainment of the objectives of the Union...

From the above provisions, it is clear that the AU, as the continental body, is tasked with ensuring that the objectives of the Abuja Treaty are attained. However, the institutional structure of the AU organs and RECs does not adequately define the manner in which these key regional continental institutions relate in the areas of coordination,

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Kennes W "African regional economic integration and the European union" in Bach DC ed *Regionalisation in Africa: Integration and disintegration* (1999 Indiana University Press) 27.

764 See art 3 the Constitutive Act of AU.

765 UNECA "Assessing regional integration in Africa" 2004 *Policy Research Report* Addis Ababa.

766 Foroutan F "Regional integration in sub-Saharan Africa: Experience and prospects: 1992 Policy Research Working Paper Series 994 6.

767 Goda A and Kobrat H "Regional economic integration in Africa: A review of problems and prospects with a case study of COMESA" 2008 *Journal of African Economics* 357-394 and Nzewi O "The challenges of post-1990 regional integration in Africa: Pan-African parliament" 2009 *Center for Policy Studies* Policy Brief 157.

768 Meyn M "Are economic partnership agreements likely to promote or constrain regional integration in Southern Africa? Options, limits, and challenges Botswana, Mauritius and Mozambique are facing" 2004 *NEPRU Working Paper* No. 96.

769 Art 3(a).

770 Art 3(j).

harmonisation and enforcement. The AU's Assembly of Heads of State and Government is given powers to make decisions, to monitor and to enforce.[771] The AU Commission is given limited powers as it acts as a technical Secretariat for the AU.[772] The Commission proposes for adoption the AU organs' decisions and regulations. The AU Assembly's powers ought to have been ceded to the Commission as an implementing organ to avoid too much control by the Member states. The Abuja Treaty states in theory that the powers of states are to be ceded to supra-national bodies in order to ensure feasible implementation of the AEC.[773] Currently the AU Commission serves as a technical resource organ rather than an implementing organ.[774] In essence, it seems that the AU has taken over the powers of the institutions created by the Abuja Treaty.

4.4.2.3 The protocol on relations between the AU and RECs of 2007

The Protocol on the Relations between the AU and RECs was adopted in 2007, replacing the 1998 AEC Protocol on relations between Africa's RECs and the then OAU.[775] The Protocol was created to address some of the problems facing African integration such as the existence of multiple regional economic integration organisations with overlapping memberships, and clear principles of coordination among them.[776]

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771 Art 4.

772 Arts 5 and 20.

773 Arts 4-6.

774 Nzewi (2009) *Center for Policy Studies* 2.

775 This protocol was adopted on February 28, 1998 and was signed by the Common Market for Eastern and Southern Africa, the Community of Sahel-Saharan State, the Economic Community of Central African States, the Economic Community of Western African States, the Inter-Governmental Authority on Development, and the Southern African Development Community.

776 See paragraphs 1 and 3 of Article 88 of Abuja Treaty of 1991.

The preamble to the Protocol stipulates that it is the responsibility of the AU to promote closer cooperation among RECs, in particular through coordination and harmonization of their policies, measures, programmes and activities in all fields and sectors.[777]
The main objective of the Protocol on Relations between RECs and the AU[778] is to emphasize the need to cooperate in all areas of common concern to foster African regional co-operation among the RECs and between them and the AU.[779] Other objectives include establishing a framework for the co-ordination of the activities of RECs in their contribution to the realisation of the objectives of the constitutive Act of the AU,[780] to strengthen the RECs in accordance with the provisions of the Treaty and the decisions of the AU,[781] and to establish a framework for linking the operations of the Specialised Technical Committees (STCs) and the Sectoral Cluster Committees of the Economic, Social and Cultural Council of the Union (ECOSOCC) to the operations of the RECs.[782]

The relationship between Africa's RECs and the AU is built, albeit indirectly, on two concepts: subsidiarity[783] and classical regional integration theories. The Protocol is based on the principle of subsidiarity because, as stated above, the RECs are regarded as the building blocks of the AEC and the AU as a continental coordinating organ. Thus, the RECs are expected to develop gradually and progressively into free-trade areas, customs unions and, through horizontal co-ordination and harmonisation, eventually to evolve into a common market embracing the whole continent.[784]

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777 See also paragraphs 1 and 3 of Article 88 of the Treaty establishing the African Economic Community (Abuja Treaty) 1991 30 *International Legal Materials* 1241

778 Available at Http//www.afrimap.org/English/images/treaty/AU-RECs-Protocol.pdf (accessed on 19 December 2011)

779 Art 3 (a).

780 Art (b).

781 Art (c).

782 Art 3 (f).

783 For a detailed discussion on the theories of classic regional integration and subsidiarity see Warleigh LA "Towards a conceptual framework for the regionalization: Bridging 'new regionalism and integration theory" 2006 *Review on International political Economy* 13:5 750-771 and Hettne B "Beyond the 'new' regionalism" available at: http//www.eki/liu.se/content/1/c4/36/46/autumn %202005/h05%20-520npe_Hettne_3.pdf.(accessed on 16 Jan 2012).

784 See Article 8(i)c of Sirte Declaration.

Articles 4 and 5 of the Protocol, which provide for general and specific undertakings, reflect on these theories.[785] The two provisions state that the duty of the AU under the Protocol and in conformity with the AEC Treaty and the Constitutive Act of the AU is to coordinate and harmonise the RECs policies and projects in order to achieve continental regional integration.[786] To achieve this objective, the protocol provides a coordination framework with coordinating organs.

The Protocol establishes two key committees: the committee of Secretariat Officials[787] and the Committee on Coordination.[788] The Committee of Secretariat Officials' main responsibilities are to prepare the ground work for the Committee on Coordination, to monitor the harmonisation of regional economic community activities, and to promote mutual assistance between the RECs.[789] The Committee on Coordination comprises the African Union Commission chairperson, the chief executives of the RECs, the executive secretary of the United Nations Economic Commission for Africa, and the president of the African Development Bank.[790] This committee is vested with the responsibility for determining the policy orientation of the protocol's implementation, coordinating micro-economic policies, monitoring progress towards the goals in article 6 of the Abuja Treaty, and deciding how to implement the decisions and directives of the summit of Heads of State and Government.[791]

Thus, it is clear that there is an institutional arrangement in place for the harmonisation and coordination of the RECs' policies and projects. The protocol provides a management scheme for cooperating on and coordinating the activities of the RECs.

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785 See the Oxford English Dictionary (Oxford University Press 2011). It was introduced to the European Union in the Treaty of Maastricht as a general principle applicable to all areas of non-exclusive competence.

786 See Arts 4 and 5 of the Protocol on relations between RECs and AU 2004.

787 See Art 6 (b).

788 See Art 6 (a).

789 See Art 9.

790 See Art 7.

791 See Art 8.

The two coordinating committees are supposed to meet annually.[792] The protocol also gives the AU powers to sanction the RECs or member states that do not comply with its directives.[793] Article 22 states:

> ...the union shall take measures, through its principal policy organ, against a regional economic community whose policies, measures and programmes are incompatible with the objectives of the Treaty or whose implementation of its policies, measures, programmes and activities lags behind the time limits set out in Article 6 of the Treaty or pursuant to this Protocol... The decisions of the Assembly and Executive Council [of the AU] may include any sanctions deemed appropriate in accordance with the Constitutive Act.

Article 6 of the Abuja Treaty provides for modalities for the establishment of the AEC. However, the RECs are not parties to the Treaty. This makes it difficult to ensure compliance despite the provision for sanctions under the Protocol on Relations between the AU and RECs. Thus, the relationship between the AU and Africa's RECs is complex and legal uncertainty prevails.[794] The RECs are neither progressing towards the goal of creating the AEC at the same pace nor with the same procedures, processes or determination.[795] The AEC's Economic and Social Commission observed that:

> there is no clear evidence that RECs have long-term continental integration in view, although trade liberalisation is in the forefront and there seems to be an acceptance of the need for rationalisation and programme harmonisation in most places.[796]

Both the Abuja Treaty and the Constitutive Act of the AU emphasise the importance of using both the existing and future RECs as pillars of the AEC.[797] Thus the RECs

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792 See Art 10.

793 See Art 22.

794 See Oppong RF "The African Union, the African Economic Community and Africa's Regional Economic Communities: Untangling a complex web" *The African Journal of International and comparative Law* (2010) vol. 18 No.1 92-103 and Leshaba M "A critical analysis of Africa's efforts at regional integration" Policy Brief 30 accessed at http//www.cps.org.za/cps%20pdf/polibrief30.pdf (accessed on 20 December 2011).

795 Mulat (1998) *Journal of World Trade* 119.

796 See the AEC economic and social commission: "Strategy and approach to the implementation of the treaty establishing the African economic community" first session 11-12 June 1996 ((AEC/ECOSOC 3(1) Rev. 1)

797 Oppong (2009) *African Journal of International and Comparative law* 2.

progress is the progress of the AU and a step towards the achievement of the AEC. However, although the RECs are building blocks of the AEC, they are not parties to the Abuja Treaty. It is individual African states that are parties to the Abuja Treaty and the Treaties creating the the RECs.[798] Also, the existing RECs are relatively young and therefore unable to fulfil the objectives of the Abuja Treaty. Since the RECs are taking longer than expected to create their own sustainable institutions, it would have made sense to have longer time frames for continental integration than those envisaged under the Abuja Treaty.[799]

Since RECs have their own legal personality and are not party to the AEC Treaty, what is the legal basis for assuming that they will merge and form the African Economic Community? It is difficult to predict if the RECs will be willing to merge with AEC within the Abuja Treaty timeframe to create the AEC. Unfortunately, these questions are not addressed in the Protocol on Relations between the AU and the RECs. Thus, this is a complicated approach to a regional integration. ,

To address the above challenges regarding the lack of clarity under the Abuja Treaty on the merger of the RECs I would concur with Oppong's recommendation for the AU to start negotiating a "merger protocol".[800] Such a Protocol should provide answers to issues relating to the post-merger status of the RECs, including RECs that are in an advanced stage of development such as the SADC and the ECOWAS; what is to happen to RECs' assets and liabilities after the merger; whether the merger should be compulsory or not and if compulsory how should it be enforced; the timeframe for the merger to occur; and the status of young RECs that have not been recognised by the AU as building blocks.

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798 Oppong (2009) *African Journal of International and Comparative law* 2. Normally, regionalism is built on the foundations of functional states.

799 Khadiagala (2008) "Governing regionalism in Africa: Themes and debates" 2.

800 Oppong 2010 *African Journal of International and Comparative law* 3.

Both the Constitutive Act[801] and the Protocol on the Relations between the AU and RECs[802] articulate the need for the harmonization and strengthening of RECs, as well as acceleration of the Abuja Treaty. Again, the question is how the RECs can contribute to Africa's performance in the new global economy so as to ensure sustained growth and the welfare of its peoples. Mulat[803] demonstrates that "regionalism can complement and facilitate the drive towards multilateralism and economic globalization"[804] and that "perhaps the strongest justification yet for Africa's RECs is to be found in the long–term possibilities they create for sustained growth and improved welfare."

However, the co-ordination and harmonisation of the RECs' programmes and policies require strong financial resources. Where will the AU get funds the for coordination and harmonisation? Financial resources have become critical, particularly because of the AU's interventionist policy.[805] The lack of the financial resources needed to implement policies is a major weakness of the protocol. There are no permanent members of staff working to ensure coordinated regional integration, making the continental harmonisation and coordination mechanisms very weak.[806] The integration policies require a constant follow-up by people with specific skills and experiences. Although the protocol contains provisions for financial assistance, the funding is less than what is required.

There are ways of improving the AU's ability to offer financial resources. First, this can be done through levying taxes in the form of a community levy and by having a coordinated approach for mobilising donor resources through coordinated projects. This may be possible especially because the AU can, under the Protocol, use sanctions

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801 See Art 8 (c).
802 See Art3.
803 Mulat (1998) *Journal of World Trade* 115-119
804 Regionalism and globalization may be regarded as both antagonistic and complementary. Thus, regionalism may be conceived as a subsystem submitted to the rationale of globalization, or as a substitute for it, or as a building block for the reconstruction of a different global system.
805 Art 4 of the AU Constitutive Act of 2002.
806 Nzewi (2009) Policy Brief 57 Center for Policy Studies 9.

against diverging member states.[807] The level of support for a community levy is quite low compared with the willingness of member states to finance.[808] This is caused by the financial burden of funding overlapping memberships, which may negate the commitment and focus at the continental level required to strengthen the AU's institutions and instruments.[809]

Another weakness is a lack of the means to facilitate continental harmonisation and coordination. Also, it is not clear whether the RECs are ready to accept harmonisation and coordination mechanisms with built-in disciplines.[810] However, the protocol offers forums for consultation and for the exchange of experiences and best practice, as well as for the development of common positions for the international forums.[811] There is ample knowledge of how to make the protocol more effective, with appropriate support and implicit acceptance of the principle of subsidiarity. These weaknesses must be addressed for the harmonisation and coordination to succeed and for African regional integration to be realised.

It is important to address the above challenges in order to create strong and viable African regional integration. The AU should strengthen its leadership role. Strong leadership is vital in building continental and sub-regional institutions.[812] The governance of African regionalism is in crisis because of the existence of unresolved questions of managing the relations between the AU (as the continental body) and the RECs (as sub-regional institutions).

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807 See Art 22.

808 Oppong (2010) *The African Journal on International and Comparative Law* 97.

809 Mulat (1998) *Journal of World Trade* 119.

810 For a detailed discussion on this issue see Riechenberg K "The merger of trading blocks and the creation of the European Economic Community area: legal and judicial issues" 1995 4 *Tulane Journal of International and Comparative Law* 63.

811 See Articles 3, 4 and 15 of the AU-RECs protocol of 2007.

812 Khadiagala (2008) *Center for Policy Studies* 3 and Gibbs (2010) *Regional Studies* 367. The AU Mission in Sudan was an earlier example of the lack of a continental capacity to intervene effectively in internal conflicts.

Another proposal is for the AU to strengthen the political stability[813] of its member states. Political stability is the prerequisite for regionalism. Political instability has implications for both economic stability and the commitment that countries can make to the regional agenda. The African region is currently very unstable. On the other hand, climate change may significantly increase political instability in the poorer countries of Africa by over-stretching the already limited capacity of governments to respond effectively to the challenges they face. The inability of a government to meet the needs of its population as a whole or to provide protection in the face of climate change-induced hardship could trigger frustration, lead to tensions between different ethnic and religious groups within countries, and lead to political radicalization. This could destabilize countries and the region as a whole and affect regional cooperation.

4.5 Concluding remarks

This chapter has discussed globalisation, regionalism and regional integration in Africa, highlighting the challenges facing African integration. The AU has responded to these challenges by promoting its relations with the RECs under the Protocol on Relations between the AU and RECs. However, the privilege of state sovereignty and efforts to guard it has led to the construction of a legal and institutional structure which is not cohesive and is lacking in supranational scope. It is not clear how the AEC can be achieved in a situation where the relation between the AEC and the RECs faces many challenges regarding the legal structure of the RECs' merger into AEC.

Regionalism can complement and further facilitate the drive toward multilateralism and economic globalisation. Perhaps the strongest justification yet for the existence of Africa's RECs is to be found in the long-term possibilities they create for sustained

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813 Countries involved in civil wars include Libya, the DRC, Egypt Tunisia, Ivory Coast Zimbabwe, and Sierra Leone. Political instability in Africa has resulted from the development of the neo-liberal/globalization orthodoxy. In many cases, however, the conflicts are a consequence of the fight over limited resources.

growth and improved welfare.[814] African RECs can be perceived as evolutionary institutions of the African continent, which may enable Africa to play its requisite role in the global economy while addressing multifaceted social, economic and political problems.[815]

An integrated regional approach to climate change may be feasible due to the fact that the consequences of climate change are cross-cutting and global in nature, hence requiring states' cooperation in addressing them. Through the African integration process, issues relating to domestic regulations and trade-environmental measures may be dealt with in a relatively comprehensive manner.[816] Coordination and harmonisation and the progressive integration of RECs under the Abuja Treaty,[817] the Constitutive Act of the AU[818] and the Protocol on Relations between AU and RECs[819] may be the avenue to ensure that RECs' and member states' policies and laws incorporate climate change considerations. However, there should be a rigorous enforcement mechanism for regional African laws such as the Protocol on Relations between the AU and RECs.

It is further concluded that strong African integration could be an avenue for the AU to promote Member states' cooperation on common issues such as climate change. Since regional integration is more a matter of regulatory cooperation, environmental measures can be covered during regional trade negotiations.[820] For instance, requiring the evaluation, coordination and harmonisation of the policies and laws of the RECs and member states represents a step towards a regional approach to climate change, because they may create a "bottom-up" process of convergence towards common

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814 Mulat (1998) *JWT* 119.

815 Chikowore G "The African Union and the destiny of Africa-hood: The Southern Africa Development Community and neo-colonial challenges to Pan-Africanism" 2002 *African Journal of International Affairs* vol. 5 nos. 1&2 40-70.

816 Cian (2004) *CEPS Working Paper* 1.

817 Art 88(1).

818 Art 3. It may be noted that under Article 88(2) of the AEC Treaty, it was the AEC (not the OAU, now the AU) that was entrusted with the co-ordination, harmonisation and evaluation of the activities of existing and future regional economic communities.

819 Art 6.

820 Selin H and VanDeveer SD "Climate change regionalism in North America" 2011 Vol 28 No. 3 *Review of Policy Research* 295-304.

environmental regulations. In this context, the tradition of state cooperation within trade regionalism may spill over into the issue of climate change, paving the way for the resurgence of regional climate change policies. Regional initiatives may make states keener on negotiating multilaterally under the UNFCCC.

CHAPTER 5: THE AU'S AND REC'S NORMATIVE FRAMEWORK IN RELATION TO CLIMATE CHANGE

Contents of this chapter

5.1	Introduction	166
5.2	The AU's normative framework	168
5.2.1	The Constitutive Act of the AU of 2002	169
5.2.1.1	The new partnership for Africa's development base document	173
5.2.1.2	AU declaration on climate change of 2007	175
5.2.1.3	Nairobi declaration on the African process for combating climate change of 2009	176
5.2.1.3.1	The AU common position on climate change	177
5.2.3	African convention on the conservation of nature and natural resources of 1968	183
5.2.4	Maputo nature convention	185
5.2.5	AU convention for the protection and assistance of internally displaced persons of 2009	192
5.2.5.1	Addressing climate change-induced IDPs through environmental refugee discourse	194
5.3	REC's normative framework relating to climate change	204
5.3.1	Southern Africa Development Community (SADC)	205
5.3.1.1	The Treaty of the Southern Africa Community	206
5.3.1.2	The SADC protocols	208
5.3.1.2.1	The SADC protocol on forestry	208
5.3.1.2.2	The SADC protocol on shared watercourses	213
5.3.1.2.3	The SADC protocol on energy	216
5.3.2	The East African Community	219
5.3.2.1	The Treaty for the establishment of the EAC of 1999	220
5.3.2.2	The EAC protocol on the environment and natural resources management	221
5.3.2.3	The EAC climate change policy	224

5.3.3 The Economic Community of West African States 229
5.3.3.1 The ECOWAS revised Treaty of 1993 230
5.3.3.2 The ECOWAS environmental policy 2008 232
5.3.3.3 The ECOWAS climate change declaration 234
5.4 Concluding remarks 237

5.1 Introduction

As stated in the previous chapters, the African continent, Sub-Saharan Africa in particular, is faced by a number of climate-related challenges.[821] Available evidence suggests that the negative impacts of climate change are greater and are expected to grow more rapidly in the developing world, especially in Sub-Saharan Africa.[822] The adverse impacts and losses resulting from these events are relatively high. Although Africa is greatly endangered by the impacts of climate change, it played an insignificant role in causing the problem. African countries are among the poorest of the developing countries.[823] However, poverty and weak governance make populations very vulnerable, with little capacity to prepare for and recover from these calamities. The need to respond to the impacts of climate change is urgent as the climate-related impacts are starting to emerge more rapidly than before.

Since the effects of climate change are transboundary in nature, the AU and RECs should find it imperative to address them. The AU began to do this when it adopted the Declaration on Climate Change in Africa in January 2007, in which member states acknowledged Africa's vulnerability to climate change.[824] The AU acknowledged further that climate change could endanger the future wellbeing of the African population, its ecosystems, and socio-economic progress. Also, African RECs have begun to give priority to climate change issues in order to cope with and adapt to climate threats. For

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821 Africa has been experiencing severe drought, floods and a rising sea level, resulting in climate change being identified as the leading human and environmental crisis of the 21st century.

822 Smith D "The Bali firewall and member states' future obligations within the climate change regime' (2010) *Law Environment and Development Journal* 286.

823 Hastings D 'Africa's Climate Observed: perspectives on monitoring and management of floods, drought and desertification' in Low PS ed *Climate Change and Africa* Cambridge University Press 2006 50

824 The AU Declaration on Climate Change and Development in Africa 2007 'http://www.african-union.org (accessed on 10 September 2010). While there is a vibrant international discourse on climate change and the serious threats it poses to both the environment and to humanity, there is less discourse on the role of regional African law in this regard.

instance, the ECOWAS adopted a Climate Change Policy in 2009;[825] the EAC adopted a Climate Change Policy in 2009;[826] and the SADC launched a Climate Change Adaptation Strategy on Water in 2011.[827]

However, climate change does not adequately feature in the AU and RECs environmental framework in spite of the fact that almost all AU member states are parties to the UNFCCC and the Kyoto Protocol.[828] First, The AU and RECs normative framework must make climate change a priority and define programmes and steps that need to be taken to ensure clear ways of dealing with degrading environmental consequences.[829] Second, the AU needs to negotiate a comprehensive regional law to address the problem at the regional level. The formulation of an adequate African regional legal framework on climate change should be geared towards collective action relating to adaptation to and mitigation of climate change impacts, while taking into account international environmental law. Third, African integration is an avenue for the AU to strengthen its voice (through common positions) in international climate change negotiations in order to ensure that African countries get adequate assistance from the developed countries under the international climate change regime. Thus, the AU and RECs normative framework on climate change could strengthen African common positions and build the adaptive capacity of African countries.

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825 Sub-regional dialogue of ECOWAS countries on climate change in West Africa 18-22 October 2008 available at http://www.africaclimate-ancc.org/spip.php? Art 1 (accessed on 10 August 2012.

826 East African Community climate change policy EAC secretariat 2011 available at http://www.uncsd2012.org/content/document/468EAC%CLIMATE%CHANGE%20POLICY.PDF. (accessed on 12 July 2011).

827 Global water partnership "Climate change adaptation strategy for the SADC water sector" available at http://www.gwp.org/fr/gwp-Southern-Africa-Climate -Adaptation-Strategy-for-the-SADC-Water-Sector-Launched.

828 Almost all African states have ratified, acceded for approval or acceded to the major international environmental treaties. In particular, all African states have ratified the 1992 UN climate change convention and the Kyoto protocol. This fact implies that most African States have subscribed to international environmental norms, principles and procedures relating to the environment, which constitute the international environmental regime.

829 See the preamble to the AU Declaration on Climate Change 2007.

This chapter analyses the AU and African RECs regional normative environmental framework relating to climate change in order to assess whether or not climate change issues have been adequately integrated in the framework. It is argued that an integrated African regional normative framework could play an integral role in responding to the climate change impacts in the region. Climate change in this discussion is contextualised as an environmental risk.

5.2 The AU's normative framework

Despite Africa's obvious vulnerability to the impacts of climate change, the AU and the RECs have done little[830] to address this problem through establishing regional and sub-regional normative frameworks.[831] The AU's efforts to respond to climate change through its normative framework are a relatively recent development. The 2007 AU Climate Change Declaration acknowledged Africa's vulnerability to climate change, while the 2009 Nairobi Declaration on the African Process to Combat Climate Change aimed at fostering AU common positions on climate change and developing climate change programmes in the continent. The two declarations reflect the objectives and principles under the Constitutive Act of the AU and other regional laws such as the Maputo Nature Convention and the Kampala Convention for the Protection and Assistance of Internally Displaced Persons.

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830 Pressend M "UN Commission Deadlocks on Climate Change and Energy" 69 *Global Insight* (2007) 3.

831 See Wyk (2010) 6. There are, however, a few exceptions like President Yoweri Museveni of Uganda, who was quoted in 2007 as calling climate change an "act of aggression" by developed countries against developing countries. Museveni is also on record as demanding compensation for the damage caused to Africa by climate change.

5.2.1 The Constitutive Act of the AU of 2002

The Constitutive Act of the AU was signed in Lome, Togo on 11 July 2000 and came into force in 2002. The AU Constitutive Act was the latest manifestation of the search for the realisation of the long cherished ideal of a politically and economically integrated and united Africa. This was the underlying theme in the speeches delivered by various Heads of State and Government during deliberations that led to the adoption of the fourth extraordinary session of the Assembly of Heads of State and Government on 9 September 1999 in Sirte, Libya.[832]

The Constitutive Act created the AU (from the Organisation of African Unity, the OAU) in order to have a stronger African organisation that could meet the new challenges facing Africa. Thus, the creation of the AU was the response of African countries to the challenges of globalisation and to the new approach to regional block formation.

The major objectives of the AU are to:

> Achieve greater unity and solidarity between African countries and the peoples of Africa;[833] accelerate the political and socio-economic integration of the continent;[834] promote and defend African common positions on issues of interests to the continent and its peoples;[835] establish the necessary conditions which enable the continent to play the rightful role in the global economy and in international negotiations;[836] promote sustainable development at the economic, social, and cultural level as well as the integration of African economies;[837] promote cooperation in all fields of human activity to raise the living standards of African peoples;[838] and coordinate and harmonise policies between existing and future Regional Economic Communities for the gradual attainment of the objectives of the Union.[839]

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832 The preamble of the AU Constitutive Act recalls, *inter alia*, the ideals which guided the founders of the OAU, the principles and objectives enshrined in the OAU Charter, and the struggles waged by African people for political independence.

833 Art 3(a).

834 Art 3(c).

835 Art 3(d).

836 Art 3(e).

837 Art 3(j).

838 Art 3(k).

839 Art 3(i).

The AU's objectives are key to addressing climate change, as they emphasise the promotion of sustainable development as well as the promotion and defence of African common positions on issues of interest to the continent. Climate change is a sustainable development issue that requires the AU's common position to be strong.

The Constitutive Act incorporates new, radically expanded and potentially far-reaching principles. These principles reflect new thinking among African States on how to coordinate[840] common responses to present-day political and socio-economic challenges.[841] They reflect an attempt by African States to create an organization that addresses itself to the contemporary demands and aspirations of ordinary people of the African continent.[842] These principles include:

> Peaceful co-existence of Member States and their right to live in peace and security; the right of Member States to request intervention from the Union in order to restore peace and security; promotion of self-reliance within the framework of the Union; respect for democratic principles, human rights, the rule of law and good governance; promotion of social justice to ensure balanced economic development; and respect for the sanctity of human life.[843]

The issues pertaining to the peaceful co-existence of Member States and their right to live in peace and security, the promotion of social justice to ensure balanced economic development, and respect for the sanctity of human life are important issues that are linked with climate change. It is evident that climate change is strongly linked with balanced economic development and human rights.[844] The principles under the Act

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840 Art 4.

841 See Article 4.

842 See Maluwa "Reimagining African Unity: Some preliminary reflections on the Constitutive Act of the African Union" (2002) 28

843 See Art 4 (h-0).

844 For a detailed discussion of the interface between climate change, development and human rights in Africa see Ebeku SA "The right to a satisfactory environment and the African Commission" 2003 3 *African Human Rights Law Journal* 149-166 and Nwobike JC "The African commission on human and people's rights and the demystification of second and third generation rights under the African charter: Social and economic rights action center (*SERAC*) and the center for economic and social rights (CESR) v. Nigeria" 2005 1 *African Journal of Legal Studies* 129-146.

represent a higher form of unity and integration for the African region as they address Africa's contemporary political agenda. The challenge is in the implementation.

The implementation of the objectives and principles of the AU is performed by various organs established under the Constitutive Act. The Assembly of the AU is the highest decision-making body and its functions include determining the common policies of the AU and monitoring the implementation of its policies.[845] Consisting of the ministers of foreign affairs of member states, the Executive council of the AU has to make decisions on areas of common interest, including, for example, the environment, science and technology.[846] Seven specialized technical committees fall under the Executive Council. Environmental issues are dealt with by the committee on Industry, Science and Technology, Energy, Natural Resources and Environment.[847] Also, the Economic, Social and Cultural Council (ECOSOCC) is an advisory organ intended to be a major institution for the participation of civil society in AU processes. However, none of its eight sectoral cluster committees focuses on environmental or climate change.[848] On the other hand, the Pan-African Parliament (the PAP) was established in order to ensure the full participation of African peoples in the development and economic integration of the continent.[849] In 2006 the PAP Committee on Rural Economy, Agriculture, Natural Resources and Environment agreed to appoint two consultants to analyse the continent's water resources, as well as the extent to which the Kyoto Protocol had been implemented in Africa.[850] This effort resulted, partly, in the AU's 2007 declaration on climate change and development in Africa, in which almost all African countries reached a common understanding regarding the threats of climate change in

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845 Art 9.
846 Art 13.
847 Art 14.
848 Article 22 of the Constitutive Act of the AU of 2002.
849 Article 17 of the Constitutive Act of the AU of 2002.
850 Pan–African Parliament 2007 Johannesburg 99.

the continent. The PAP's report also disclosed a lack of visible African political leadership on climate change negotiations.[851]

Thus, the Constitutive Act creates an institutional structure to guide the implementation of the objectives of the AU. However, as seen above, environmental matters are dealt with by several organs, making the implementation of environmental decisions difficult.[852] As part of the solution to this difficulty, the African Ministerial Conference on the Environment (AMCEN) initiated discussions with the AU's Secretariat on issues relating to the harmonization and linkages between AMCEN and the AU.[853] These negotiations led to AMCEN being incorporated into the AU structure as a Specialized Technical Committee (STC) of Agriculture, Rural Development, Water, and Environment.[854] It is noteworthy that this elevates AMCEN from just being a forum for policy deliberations to a decision-making body within the AU structure. The Constitutive Act of the African Union specifies that the STC is comprised of the ministers and senior government officials responsible for their respective sectors.[855] The main functions of specialized technical committees include project formulation, supervision, implementation, harmonization and coordination, as well as the submission of reports to

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851 See: The 8th Ordinary Session of the AU Assembly (January 2007), where AU Member States were asked to integrate climate change into their respective development programmes; the 12th Session of the Assembly (February 2009), which underscored the need for Africa to demand compensation for damages caused by global warming; and the 13th AU Assembly of Heads of State and Governments, in Sirte (July 2009), where the AU Commission accomplished the necessary follow up and the Assembly decided to approve the conference of African Heads of State and Governments on Climate Change (CAHOSCC). The countries involved are Algeria, the Republic of Congo, Ethiopia, Kenya, Mauritius, Mozambique, Nigeria and Uganda. Persons involved were the Chairperson of the AU, the Chairperson of AUC (namely H.E. Jean Ping); and the Chairperson of AMCEN (H.E Amadu Toumani Toure).

852 Van Wyk J "The African union's response to climate change and climate security" in Mwiturubani D and Van Wyk J eds *Climate change and natural resource conflicts in Africa* (2010 Institute for Security Studies) 9.

853 AMCEN *Addressing climate change challenges in Africa: Practical guide towards sustainable development* ((2011 African Union) 2.

854 AMCEN "Consideration of the African Ministerial Conference on the Environment as part of the Specialized Technical Committee of Agriculture, Rural Development, Water, and Environment of the African Union and related matters" Bamako: 21 to 25 June 2010UNEP/AMCEN/13/7

855 Art 5(g) of the AU Constitutive Act of 2002.

the Executive Council.[856] As an STC of the AU, AMCEN still maintains its original mandate in the new institutional arrangements. With the political support of the AU, AMCEN will be able to enhance co-ordination and programme delivery and facilitate the work of the Commission in the area of environmental governance.[857]

Given the long-term existence of AMCEN and its various organs and partners, the AU will gain from AMCEN's wealth of experience in environmental governance and policy, thus enhancing its capacity to oversee the implementation of its programmes on climate change in Africa. With the harmonization of the AMCEN and the AU, particularly with regard to the implementation of the Action Plan of the environment initiative of NEPAD, the AU will able to effectively implement measures to combat climate change. AMCEN's wealth of experience in environmental governance and policy supports the AU's work on climate change issues. AMCEN, being part of the AU structure as a specialised technical committee, reinforces its advisory role. In this context, the AU presents a viable opportunity to deal with climate change threats.

5.2.1.1 The new partnership for Africa's development base document

Adopted as an official AU Programme, the new Partnership for Africa's Development (NEPAD) Base Document was one of the first AU statements on the role of the environment.[858] The Base Document includes a programme of action vis-à-vis achieving sustainable development. Moreover, it identified the environment as one of the six sectoral priorities.[859] The environment initiative includes wetlands, preventing and

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856 Art 15 of the AU Constitutive Act of 2002.

857 AMCEN (2011) 3.

858 The NEPAD is the vision and strategic framework for Africa's renaissance. For more details about NEPAD's history go to http://www.nepad.org/hirtory (accessed on 25 July 2013),; and for NEPAD's principles and priorities, go to http://www.nepad.org/system/files/framework_0.pdf. (Accessed on 25 July 2013).

859 For more explanation and discussion of the NEPAD's role in Africa, see Awumo K "Globalization, NEPAD and the governance question in Africa" 2002 *African Studies Quarterly* vol. 6 issue 3 65-82; Taylor I "Globalization and regionalization in Africa: Reactions to attempts at neo-liberal regionalism" 2003 *Review of International Political Economy* 10/2

controlling invasive alien species, managing coastal areas, monitoring and regulating the impact of global climate change, establishing cross-border conservation areas, improving environmental governance and securing financing. The sole paragraph on global warming reads:

> The initial focus will be on monitoring and regulating the impact of climate change. Labour-intensive work is essential and critical to integrated fire management projects.[860]

In addition to its Action Plan, NEPAD's Climate Change and Natural Resource Management programme plays a co-coordinating and advocacy role to promote regional and national programmes aimed at combating climate change. The Climate Change programme within NEPAD works to bring together all relevant regional and continental players to co-ordinate their work, share knowledge and encourage one another in addressing the threat of climate change. The objective of the programme is to assist countries in integrating climate change responses into their national development processes. The programme aims to strengthen skills in adaptation, mitigation, technology and finance to combat climate change.[861]

However, despite this development under NEPAD, the activities of AMCEN and the AU need to be coordinated and harmonized in order to avoid the duplication of Africa's environmental initiatives. The absence of such coordination would increase the burden on African States and sub-regional, intergovernmental organizations, since they would bear responsibility for the implementation of environmental programmes.[862] There is, therefore, the need for stronger institutional links and the harmonization of activities

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310-330 and Chabal P "The quest for good governance and development in Africa: is NEPAD the answer?" 2002 *International Affairs* 78/3 447-467.

860 NEPAD secretariat "New partnership for Africa's development base document" Abuja: NEPAD secretariat 2001 13-15.

861 AMCEN "AMCEN Climate Change Communication Strategy" 2010-2012: Recognizing the urgency for communicating climate change: 26 August 2010. AMCEN/SS/IV/INF/2.

862 IPCC (2009) "Summary for Policymakers 'United Nations Educational, Scientific and Cultural Organization (UNESCO) and the United Nations World Water Development Report 3 'Water in a Changing world'" London UNESCO and Earthscan 2009.

between AMCEN, the AU and other institutions dealing with the socio-economic pillars of sustainable development in the region. Africa's environmental governance must be under the guidance of one institution. Such an institution should be backed by the necessary technical and financial support and the political weight to carry out its objectives and functions.

5.2.1.2 AU declaration on climate change of 2007

At the eighth ordinary session of the African Union held in 2007, African heads of State and Government expressed grave concern regarding the vulnerability of Africa's socio-economic and productive systems to climate change and variability, and the continent's low mitigation and response capacities.[863] In their decision and declaration on climate change, they called upon Africa's cooperation partners to support the member states and regional economic communities (RECs) to effectively integrate and implement adaptation and mitigation measures into their development plans. They also urged African States and RECs in collaboration with the private sector, civil society and development partners, to integrate climate change considerations into development strategies and programmes at national and regional levels.[864]

The declaration called for member states to participate in the UNFCCC negotiations; build capacity and invest in data collection and early warning systems; strengthen research, especially in renewables, forestry, and agriculture to increase resilience; and accept the transfer of technologies.[865] The declaration urges member states to put pressure on the developed countries on the "polluter pays" principle seeking deeper GHG emission cuts and a more effective environmental facility.[866]

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863 Decision on climate change and development Assembly/AU/Dec. 134-Doc.Assembly/AU/12 (VIII). See also para 5 of the Declaration.

864 Para 7 and the preamble to the preamble to the AU declaration on climate change of 2007.

865 Para 8.

866 Para 9.

A Strong AU common position on climate change is key to realising the goals proclaimed in the declaration. However, although the AU has tried to ensure a coherent joint African position on climate change at international climate change negotiations, there have been some strains because of the divergent national interests,[867] particular African states' relationship with particular developed or emerging nation-players, and varying capacity in negotiating skills.[868] The AU dealt with this issue further in the Nairobi Declaration on climate change.

5.2.1.3 Nairobi declaration on the African process for combating climate change of 2009

The AU,[869] through the assistance of the AMCEN, established the Nairobi declaration on the African process to combat climate change (Nairobi climate change declaration) in February 2009.[870] The goal was to articulate the challenges and opportunities for Africa in the climate change negotiations.[871]

Basically, the objectives of the Nairobi Declaration are to develop a comprehensive framework of African climate change programmes, and define Africa's common negotiating positions.[872] In other words, the Nairobi climate change declaration establishes a process of combating climate change in two ways; defining an African common position during international climate change negotiations and developing a

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867 Gray and Gupta (2003) "Climate change and Africa" 72. See also The World Bank Report (2008) "Energy in Focus" *Washington* 144

868 Hoste JC "Where was united African in the climate change negotiations?" 2010 Egmont Institute, Africa Policy Brief available at http://www.egmontinstitute.be/papers/10/arf/2010-feb-Afr.P.Brief-Hoste-climate-change-.pdf (accessed on 11 June 2013).

869 See the decision Assembly /AU/Decl.4 (VIII).

870 See UNEP/AMCEN/12/9.annex II. The decision was made in the preparations for the global climate change conference in Copenhagen in December 2009.

871 Masters (2011) *South African Journal of International Affairs* 258.

872 African countries had been grouped together with the G77, which implies that very poor African states were in the same group with industrializing states such as China and India. The reason for this grouping was to strengthen the negotiating power of the African states. Although this may be an advantage on the one hand, it may result in the failure by African states to articulate the distinct interests of the African continent.

comprehensive framework of African climate change programmes.[873] The declaration updated the Algiers declaration, which served as a reference document for the African AWG-LCA 6 held in Bonn from 1 to 12 June 2009. The Nairobi declaration is based on the pillars of the Bali Action Plan, namely adaptation, mitigation, financing and technology transfer.[874]

5.2.1.3.1 The AU common position on climate change

The AU decided that the African common position on climate change must be represented by one delegation that empowered to negotiate on behalf of Member States. As stated in Chapter Two, the IPCC had already described Africa as one of the most vulnerable continents because of a range of projected impacts, multiple stresses and its low adaptive capacity. Indeed, it was this opinion of the IPCC's that made the AU decide to mobilise a collective position for member states to promote the continent's interests. This step is to be taken in accordance with the objectives of the AU under the 2002 Constitutive Act, which emphasises promoting and defending an "African common position on issues of interest to the continent and its peoples"[875] as well as "[establishing] the necessary conditions which enable the continent to play the rightful role in the global economy and in the international negotiations",[876] and "[promoting] sustainable development at the economic, social, and cultural level as well as the integration of African economies."

The AU mandated the Committee of African Heads of State and Government on Climate Change (CAHOSCC) to designate and use accordingly the African common

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873 See the Decisions adopted by AMCEN in it 12th session available at http://www.unep.org/roa/Amcen_Events/12th_Sessions?Amcen/index.asp (accessed 27 July 2013).

874 For a detailed discussion on the pillars of the Bali action plan, see Ramajani L "From Berlin to Bali and beyond: Killing Kyoto softly?" 2008 17 *Review of European Community and International Environmental Law* 142-153 and Smith C "The Bali Firewall and Member States' future obligations within the climate change regime" 2010 6/3 *Law, Environment and Development Journal* 284-295.

875 Art 3(d).

876 Art 3(i).

position on climate change.[877] CAHOSCC is required to spearhead leadership in the climate change negotiation process by using approved African common position to achieve optimal results for the continent. In order for Africa to remain united in all future negotiations on climate change the AU assembly requested CAHOSCC to create a structure which will for the purpose of efficiency include Ministerial and Expert levels, to replace the previous coordinating mechanism.[878]

The African common position on climate change aims at arguing and persuading all State Parties to the climate change regime to increase support for Africa under the future climate change regime, based on the priorities determined by Africa. The development of a common position under the Nairobi climate change declaration occurred through broad consensus of the AU member states based on African countries' needs such as adaptation, capacity building, research, financing, and technology[879] development and transfer.[880] The African common position on climate change has since formed the basis for negotiations by the African group during the negotiations for a new climate change regime and has taken into account the key priorities for Africa, which are sustainable development, poverty reduction and the attainment of the millennium development goals.[881]

The agreement on a common position on climate change in Africa is indeed a critical step taken towards responding to climate change in the region.[882] It is one mechanism

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877 See Assembly/AU/Dec. 457(XX) AU Assembly decision on the coordination of the committee of the African heads of state and government on climate change.

878 Masters 2011 *South African Journal of International Affairs* 259.

879 For a detailed explanation of technology transfer in climate change, see Sullivan K "Technology transfer and climate change: Additional considerations for implementation under the UNFCCC" 2011 7/1 *Law, Environment and Development Journal* 1-16.

880 UNEP report 2009 available at http://www.unep.org/roa/amcen/amcen_events/3rd_ss/Docs/nairobi-declaration-2009.

881 Gray K and Gupta J "The United Nations Climate Change Regime in Africa" in: Chaytor B and Gray K (eds) *International Environmental Law and Policy in Africa* (Kluwer Academic Publishers London 2003) 60-82.

882 Due to the lack of political willpower of many African states in comparison with the willpower of states in the international community, Africa has largely remained absent from climate change negotiations. www.ifpri.or/publication/climate-change-africa-key.facts-and -findings (accessed on 12 October 2011)

to assist the regions most affected by climate change to curb the effects of climate change, because it increases the negotiating power that African countries lack individually. Yet Africa is a continent fragmented by old colonial lines and borders,[883] and unifying all countries under one common position may be difficult.

The first challenge is the ability of the African group to sustain the common position.[884] For instance, the African consensus was disrupted during COP 15 after Ethiopian Prime Minister Meles Zenawi unilaterally departed from the common position and submitted the Joint Appeal of France and Ethiopia, representing Africa, for an ambitious Copenhagen Accord followed by accusations from Sudan's chief negotiator and Chairperson of the G77, Lumumba Di-Aping, that Zenawi had capitulated pressure from rich states.[885] Scholtz notes that the "actions of Zenawi and the response thereto accordingly led to the demise of the common negotiating strategy of the African group".[886] The development of a common position on climate change should help Africa to create a stronger bloc with greater negotiating, power and this can be realised only if the agreed common positions are sustained.[887] Common positions may act as a continental response to the challenges of globalisation and the marginalisation of Africa.[888] Thus, the strong unity and solidarity of the African bloc is important during COP negotiations in order to ensure that more attention is paid to African needs.[889]

Second, although the difference is not drawn in the AU between advanced developing states and poor states,[890] this difference exists on the continent and needs to be

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883 For a detailed discussion of the African common position on climate change see Scholtz W "The promotion of regional environmental security and Africa's common position on climate change." 2010 *African Human Rights Law Article* 1-25.

884 Masters (2011) *South African Journal of International Affairs* 259.

885 Scholtz (2010) *African Human Rights Law Journal* 12.

886 Scholtz (2010) 12.

887 Scholtz (2010) 12.

888 Scholtz (2010) 7.

889 Ruppel OC "Climate change policy positions and related development in the AU and SADC" 2012 *SADC Law Journal* 4.

890 The African group of negotiators refused to countenance such differentiation between advanced developing and developing states during COP 14.

balanced in order for a feasible common position on climate change to be reached.[891] For example, South Africa is a major greenhouse gas emitter in Africa, producing some 318 million metric tons of carbon dioxide (the major greenhouse gas) in 2003, according to the International Energy Agency.[892] According to similar statistics, Namibia emitted a piffling 2.5-million tons, and oil-rich Nigeria a "mere" 49-million tons.[893] Therefore, it is difficult and ineffective to put all African states in the same common bloc without political pressures tending to dissolve the "common-ness". The African common position on climate change is supposed to reflect this heterogeneity, because it is obvious that African states are not homogenous.[894] Most African states are poor and lack the capacity to respond to the effects of climate change, and this necessitates that such states co-operate with major African economies in order to pool resources.[895] South Africa may thus enhance the capacity of the African group of negotiators and may assist other African countries with the requisite climate change technology.[896]

If African countries are to be given more concessions in recognition of how the effects of climate change impact Africa especially, more effort must be put into developing an African Common Position on Climate Change. As Kenya's environmental secretary, Alice Kaudia, comments, "One single country will not solve its environmental problems on its own, it will need partners, and that's why it's very important that there's that

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891 Differences do exist due to different levels of development. While South Africa and a few other African countries emit GHG to levels that contribute to climate change, other African states do not contribute to the problem. South Africa may therefore dominate the negotiation and may benefit more than other African countries.

892 Merck. "Science in Africa." September 2006. South Africa's Greenhouse Gas Emissions Under Focus. http://www.scienceinafrica.co.za/2006/september/greenhouse.htm (accessed on 13 November 2011). See also Gray & Gupta (2003) *UN Climate Change Regime and Africa* 70.

893 See Merck (2006) 5.

894 Some African states are oil producing, others are island states, and still others are agricultural states. Thus different States have different interests regarding climate change. See Werner (2010) *African Human Rights Law Journal* 12. It is very difficult to have a truly common position in this environment.

895 See Scholtz (2010): *African Human Rights Law Article* 24. and Merck. "Science in Africa." September 2006. South Africa's Greenhouse Gas Emissions Under Focus. http://www.scienceinafrica.co.za/2006/september/greenhouse.htm (accessed on 13 November 2011).

896 This will depend on if South Africa is willing to take a leading role regarding African interests.

unified common position."[897] Strengthening AU member states' cooperation in agreeing on feasible common positions on climate change may result in getting more funding, technology development and transfer and capacity building for Africa's climate change programmes.

5.2.1.3.2 The AU climate change programmes

The second aspect of the Nairobi climate change declaration is the development of a comprehensive framework of African climate change programmes. AMCEN developed an indicative conceptual outline of a comprehensive framework of the African climate change programmes based on the identification of the top priority, which is adaptation, and the need for mitigation supported by finance, capacity building, and the transfer of technology.[898] Thus, a number of regional climate change programmes have been developed. They include the Climate for Development in Africa programme (ClimDevAfrica) which enhances the use of climate information for development while also supporting adaptation to climate change;[899] the African Monitoring of the Environment for Sustainable Development (AMESD) project, which uses satellite-based technology to monitor environmental change to assist policy development;[900] the Great Green Wall for the Sahara Initiative, which helps to prevent land degradation in the Sahel and Sahara; and a disaster risk reduction programme.[901]

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897 See BBC news 25 August 2009 http://news.bbc.co.uk/2/hi/8217449.stm (accessed on 11 October 2011).

898 See AMCEN at http://www.unep.org/roa/Amcen/Amcen _Events/12th sesseion_AMCEN/index.asp (accessed 25 July 2013).

899 AFDB report "Framework document for the establishement of the ClimDev-Africa special fund" 2012 available at http://www.afdb.org/ fileadmn/documents (accessed on 10 August 2013) and the UNECA "ClimDev-Africa programme work plan for 2012-2014" available at http://www.afdb.org/filesadmn/documents (accessed on 10 August 2013).

900 Http://www.amesd.org. (accessed on 10 August 2013).

901 FAO report "Great green wall for the Sahara and the Sahel initiative" report available at http://www.fao.org/docrep/016/ap603e.pdf and FAO report "Harmonised regional strategy for implementation of the great green wall initiative of the Sahara and Sahel" report available at http://www.fao.org/file admn/templates/europeanunion... (accessed on 12 August 2013).

The African climate change policy centre was established in 2010 as part of the Climate for Development in Africa (ClimDev-Africa) programme.[902] As explained above, the ClimDev-Africa programme is a joint initiative of the AU Commission, the UN Economic Commission for Africa and the African Development Bank, and was established to create a solid foundation for an African response to climate change.[903] ClimDev-Africa is an integrated programme which links programmatic activities delivered through the Climate Policy Centre (ACPC), the Climate Change Desertification Unit (CCDU) and investment activities delivered through the ClimDev Special Fund.[904]

The main objective of the ACPC is to propose suitable policy options and provide technical support to African countries to help them make development more sustainable and to better manage associated climate risks for the benefit of Africans.[905] The ACPC is therefore expected to act as a hub for the development of a demand-led knowledge base on climate change in Africa by helping AU member states to mainstream climate change into their development strategies and programmes.[906]

However, although the AU has managed to make some achievements in terms of climate change programmes for Africa, clear and concerted commitments are still needed, particularly with respect to funding and capacity building.

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902 ECA "Report on climate for development in Africa (ClimDev-Africa) programme" 2012 5. See also Ruppel (2012) *SADC Law Journal* 23.

903 ECA (2012) 3.

904 AFDB report "Framework document for the establishement of the ClimDev-Africa special fund" 2012 available at http://www.afdb.org/ fileadmn/documents (accessed on 10 August 2013)

905 The centre organised its first climate change and development in Africa conference in October 2011 in Adis Ababa with more than 500 participants. It also participated in COP 17 in Durban by organising a two weeks' pavilion of side events, round-tables and notably the African Day on 8 December 2011.

906 Ruppel (2012) *SADC Law Journal* 23.

5.2.3 *African convention on the conservation of nature and natural resources of 1968*

The 1968 African Convention on the Conservation of Nature and Natural Resources was the first regional attempt to address environmental concerns in Africa.[907] This convention was adopted by the AU`s predecessor – the OAU. Its fundamental principle commits member states "to adopt the measures to ensure conservation, utilization and development of soil, water, flora and fauna resources in accordance with scientific principles and with due regard to the best interests of the people."[908] The convention not only moves away from the notion of nature conservation purely for the use of people (anthropocentrism[909]), but also emphasizes the principle underlying ancient African environmental conservation and management practices. This is seen in the preamble, which acknowledges *inter alia* that natural resources constitute a capital of vital importance from an economic, nutritional, scientific, educational, cultural and aesthetic point of view; and that the utilization of the natural resources must aim at satisfying the needs of man according to the carrying capacity of the environment.[910] The convention further obliges States party to undertake "individual and joint action for the conservation, utilization, and development of these assets by establishing and maintaining their national utilization for the present and future welfare of mankind."[911] The spirit of the

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907 It should be kept in mind that while the adoption of this convention by the then newly independent African nations constituted the first regional attempt to address environmental concerns in the continent, it was not the start of environmental protection in Africa, as protection of the environment was an integral part of the religious, cultural and social life of Africans before their colonization See Amechi EP "Enhancing environmental protection and socio-economic development in Africa: A fresh look to a general satisfactory environment under the African Charter on Human and Peoples' Rights" (2009) 5/1 *Law, Environment and Development Journal* 62-63.

908 OAU 'African Convention on the Conservation of Nature and Natural Resources' 1968 htto://www.sedc.ciesin.org/entri/txt/African.conv.conserva.1969.html (accessed on June 2011).

909 Considering human being as the most significant entity of the universe and interpreting or regarding the world in terms of human values.

910 See the preamble to the 1968 African Convention on the Conservation of Nature and Natural Resources.

911 See para 6 of the preamble.

convention is based on the integration of environmental protection to achieve sustainable development in the region, including poverty reduction.[912]

A close look at the convention reveals that although climate change is not dealt with directly, the emphasis on sustainable development and poverty reduction makes the convention an important African regional law capable of addressing the challenges of climate change.[913] This is so because climate change, sustainable development and poverty in Africa are closely interrelated.[914] Thus, addressing climate change is vital to the achievement of sustainable development and poverty reduction in Africa under the Convention.

However, while the convention marked the beginning of a formal attempt by African countries to address regional environmental concerns, it did not have the anticipated effects of stimulating further environmental developments either at the regional or national levels.[915] This was because, most African countries lacked comprehensive environmental regulatory frameworks. Moreover, African countries' priorities seemed to be the eradication of poverty and the provision of basic needs to their people rather than environmental protection. Moreover, the Algiers Convention does not establish institutional structures that facilitate its effective implementation by the Parties, nor does it establish mechanisms to encourage compliance and enforcement.[916]

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912 Art 2.

913 Arts 2 and 3

914 Amechi (2010) 115. See also the New Partnership for Africa's Development (NEPAD) action plan of the new partnership for Africa's development 2003 para 23 at www.unep.org/oroa/Amcen/dcs/publications/ActionNepad.pdf.

915 Beyerlin and Holzer "Perpectives of nature protection in Africa: The 2003 Maputo convention on the conservation of nature and natural resources" 2008 1/2 *Journal of African and International Law* 8.

916 Art 16.

5.2.4 *Maputo nature convention*

The Maputo African Convention on the conservation of nature and natural resources was adopted on 11 July 2003 at the second AU summit of Heads of State and Governments.[917] The Maputo convention will replace the Algiers convention for those African states which have ratified it once it comes into force. The AU sought to revise the Algiers convention to strengthen it and bring it in line with recent developments and thinking in international environmental law and sustainable development, as well as the latest scientific and technological developments in the environmental field.[918]

The objectives of the Maputo convention are to enhance environmental protection; to foster the conservation and sustainable use of natural resources; and to harmonize and coordinate policies in these fields with a view to achieving ecologically rational, economically sound and socially acceptable development.[919]

This is a comprehensive regional convention on natural resources, the environment and development that may serve as a "road map" for the management of Africa's natural resources.[920] Its emphasis on achieving "ecologically rational, economically sound and socially acceptable development" exhibits its commitment to linking environ*mental* problems with sustainable development. The objectives correspond to the key elements of a sustainable development approach, which are assessing the environmental and social impacts, developing sustainability plans and objectives, and monitoring and reporting on sustainability performance.[921]

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917 African convention on the conservation of nature and natural resources (revised version) 11 July 2003 available at www.africa-union.org/root/au/Documents/Treaties/Text/nature%20and%20natural%20resource.pdf (accessed on 17 August 2011).

918 See the preamble.

919 See Art 2.

920 See Amechi (2010) 126.

921 See Tlad D (2010) 44. The Convention also addresses economic and social development goals, both in its substantive provisions and its preamble, which recalls the Lagos Plan of Action for the Economic Development of Africa and the Final Act of Lagos as well as the African Charter on Human and Peoples Rights, and stresses the necessity to work closely

The commitment to the achievement of State cooperation and the attainment of socio-economic development is evidenced by the convention's guiding principles, which include the right to a satisfactory environment and the right to development – the so-called "third generation of human rights"; and the duty of States individually and collectively to ensure the enjoyment of the right to development and the duty of States to ensure that development and environmental needs are met in a sustainable, fair and equitable manner.[922]

By characterizing these rights and duties as guiding principles for the implementation of the Convention by the Parties, the Convention imbues them with a concrete and practical meaning. This is reinforced by the consideration of sustainability and equity as the basis of the third principle.[923]

The integration of environmental conservation considerations with socio-economic concerns features throughout the provisions of the Convention. It calls for the Parties to integrate developmental and environmental concerns by treating both as an integral part of national and/or local development plans. It spells out that ecological, social, economic and cultural factors should be given full consideration in their development, with the overall objective being to promote sustainable development.[924]

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together towards the implementation of global and regional instruments supporting the goals of the Rio Declaration and Agenda 21. By addressing the three pillars of sustainable development in an integrative manner, the Convention provides a unique tool to advance its implementation in Africa.

922 See Art 4. IUCN "An introduction to the African convention on the conservation of nature and natural resources" IUCN environmental policy and law paper no. 56 2006 *World Conservation Union* 6.

923 Biber–Klemm S "Access t genetic resources and the fair and equitable sharing of the benefits resulting from their use: Challenges of a new concept 2008 1 *Environmental Law Network International Review* 12.

924 See Article XIV on "Sustainable Development and Natural Resources". The principle of integration preceded the notion of sustainable development. Principle 13 of the 1972 Stockholm Declaration proclaimed that "in order to achieve a more rational management of resources and thus to improve the environment, States should adopt an integrated and coordinated approach to their development planning so as to ensure that development is compatible with the need to protect and improve environment for the benefit of their population." Later on, in its report "Our Common Future", the Brundtland Commission introduced integration as the main foundation of sustainable development strategies. The

Other relevant provisions vital to addressing climate change in Africa relate to the control of pollution, and waste management.[925] Article XIII on "Processes and Activities Affecting the Environment and Natural Resources" commits Parties to take measures to prevent, eliminate and reduce the adverse effects of radioactive, toxic and other hazardous substances and waste. In order to achieve this objective, Parties must harmonize their policies in a manner consistent with their international legal obligations.[926] In particular, they should "establish, strengthen and implement national standards, including for ambient environmental quality, emission and discharge limits, as well as process and production methods and products quality." They are also required to collaborate with the competent international organizations over this matter. These provisions can be useful in addressing climate change through both adaptation (the best available technology) and mitigation (an emission standard). Other issues relevant to adaptation to climate change that the convention deals with are capacity building, education and training.[927]

Articles VI, VII and VIII consider fundamental rules for the conservation and sustainable management of land resources. Article VI addresses the issues of land degradation and directs the Parties to take measures for the conservation and sustainable management of land resources, including soil, vegetation and related hydrological processes. The measures are spelt out in some detail and include the implementation of improved agricultural practices and agrarian reforms, particularly on soil conservation, sustainable farming and forestry practices, and pollution control. The Convention compels Parties to address the management of water resources, whether underground, surface or rain

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notion of integration was further linked to sustainable development in Principle 4 of the Rio Declaration.

925 See Articles XIII and XVII.

926 For instance, relevant treaties may include the Stockholm convention on persistent organic pollutants (POPs), adopted on 22 May 2001, entered into force on 17 May 2004; the Basel convention on the control of the transboundary movements of hazardous wastes and their disposal, adopted on 22 March 1989, entered into force on 5 May 1992; and the Bamako convention on the ban of the import into Africa and the control of the transboundary movement and management of hazardous wastes within Africa, adopted on 30 January 1991, entered into force on 22 April 1998.

927 Art. XX.

water, in such a way as to maintain them at the highest possible quantitative and qualitative levels and to ensure the protection of human health. To this end, it requires that measures be taken to control pollution, water-borne diseases and excessive abstraction. Parties must also ensure that people have access to a sufficient and continuous supply of water.[928]

It also directs the Parties to take measures for the conservation, sustainable use and rehabilitation of vegetation cover, and thus to adopt measures to soundly manage forests, woodlands, and wetlands. To this end, States must take concrete steps to control forest exploitation and fires, land clearing for cultivation and grazing by domestic and wild animals, as well as invasive species.[929] Forest reserves must also be established, and reforestation programmes carried out. Whereas the Convention does not state the exact meaning of forest reserves, Article VIII is still important for African countries in which deforestation – resulting from overharvesting, overgrazing, slash-and-burn agriculture, and the de-gazetting of forest reserves for other land uses - is increasing.[930]

The convention further requires Parties to agree to "encourage and strengthen the development and use, as well as access and transfer of environmentally sound technologies on mutually agreed terms".[931] The envisaged transfer of technology is to be achieved through joint research programmes and ventures with the objective of accelerating the transition to sustainable development. The Parties must also adopt laws and regulations on economic incentives for the development, importation, transfer and utilization of environmentally sound technologies in both the public and the private

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928 Art. VII.

929 Art. VIII.

930 In a joint report by FAO, the African Development Bank and the European Commission, it was reported that "Between 1990 and 2000, the [African] continent lost about 52 million ha of forest, accounting for about 56 percent of the global reduction in forest cover." See FAO (2003) 'African forests: A view to 2020'

931 See article XIX of Maputo convention.

sectors. Technology transfer requirements are essential provisions for Africa[932] in addressing climate change. Major African economies like South Africa could, under the convention, assist poor African countries with the technology requisite to address climate change.

Article XIX also commits Parties to enact legislation that provides economic incentives for the development, importation and transfer of technology. This might mean the protection of intellectual property rights, which is generally considered to serve as an economic incentive to trigger innovation. The existence of an intellectual property protection regime is therefore an incentive for the transfer of technology on mutually agreed terms, which might be licensing agreements, joint ventures, foreign direct investment, technical-service arrangements, sales contracts, management contracts, or joint research and development.

Unlike the old Algiers convention, the Maputo convention provides for strong institutional mechanisms for its implementation.[933] It provides for the creation of the Conference of Parties (COP) of the convention that will be its decision-making body. To be established at the ministerial level, the COP will hold ordinary meetings at least once every two years, with the first meeting to be held no later than one year after the date of entry into force of the Convention.[934] Extraordinary meetings may be held either at the discretion of the members of the COP or at the request of one Party. Decisions shall be made as far as possible by consensus or otherwise by at least a two-thirds majority of the parties present and voting. COPs have become common institutional arrangements in multilateral environmental agreements (MEAs).[935] They can be seen as a special

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932 Transfer of technology is defined as the transfer of a systematic body of knowledge for the manufacture of a product, for the application of a process or for the rendering of a service. The Convention covers only the transfer of environmentally sound technologies and only for the promotion of sustainable development. This implies that Parties will have to undertake technology assessments. See Glowka L *et al* (1994) "A guide to the convention on biological diversity".

933 See article V of Maputo convention.

934 Ses Arts. XXVI(1) and XXVI(5)

935 Beyerlin and Holzer (2008) *Journal of African and International Law* 13.

form of intergovernmental organisation, and the COP under the Maputo convention takes this from.[936]

The Convention emphasizes state cooperation, which is important for the implementation of national measures to conserve and use natural resources sustainably.[937] Actions undertaken in one state may have an impact on the natural resources of another State. Some species are common to the territory of several countries and therefore conservation programmes must be considered and implemented cooperatively, if not jointly. Communities that belong to a number of States may hold traditional knowledge and may be responsible for innovative practices.[938]

The Convention calls on Parties to cooperate between themselves and also with other States, including those that are not Parties to the Convention, in order to address transboundary environmental issues and to harmonize and enhance the effectiveness of their policies and legislation. Cooperation is also mentioned in the context of scientific and technological research, of economic and marketing systems, and of the development and use, as well as access to and transfer of, environmentally sound technologies on mutually agreed terms.[939]

We can therefore say that the Maputo convention embodies a comprehensive regional regime for environmental protection and sustainable development. Grounded on the three pillars of sustainability, engaging in outreach, and providing for stronger institutional tools, the new Convention establishes a wide-ranging and solid legal foundation for the environment continent-wide, crystallizing African responses to global

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936 For a detailed discussion of COPs under multilateral environmental agreements, see Churchil RR and Ulfstein G "A little-noticed phenomenon in international law" 2000 94 American Journal of International Law 623 and Brunee J "COPing with consent: Law making under multilateral environmental agreements" 2002 15:1 *Leiden Journal of International Law* 1.

937 Art. III.

938 It is worth noting that unlike its predecessor, the Convention excludes reservations. This reflects the necessity for the Parties to apply common solutions to common problems in order to meet the Convention's objectives. If the Parties had the right to make reservations, the asymmetry of obligations would jeopardize the attainment of these objectives.

939 See article XIX of Maputo convention

issues and commitments. It provides a landmark for further advancing the role of regional law to sustain the linkage between environmental challenges such as climate change and the management of resources among African nations and communities. As such, the Maputo convention represents a milestone for furthering Africa's environmental laws and institutions nationally, in line with regional and global legal regimes.

Unfortunately, the Convention has not entered into force. In order to enter into force it needs the ratification of 15 States.[940] As of 10 August 2012, 37 States had signed the Convention and 8 had ratified it. There is therefore an urgent need to speed up the ratification process so that the Convention enters into force as soon as possible.

The Ministers of Environment met in Arusha, Tanzania from 12 to 14 September 2012 to discuss strategies that can be employed to encourage and promote African states to ratify the Maputo convention. They adopted a decision on a strategy to promote the ratification of the Maputo convention.[941] The decision aimed to:

> urge all Member States to create awareness of the 2003 Maputo Convention on Nature and Natural Resources and the use of the Strategy to guide the promotion of ratification and implementation of the Convention; urge Member States that have not done so to take the necessary measures as soon as possible to ratify and implement the 2003 Maputo Convention on Nature and Natural Resources;

Indeed, this is a step towards promoting ratification of the Convention. However, such a "campaign" could be linked to outreach activities in the context of the NEPAD environmental action plan, in particular the strategic plan to build Africa's capacity to implement global and regional environmental conventions. Such a plan includes human resource development, public education and awareness programmes, strengthening institutions and coordination between institutions, improving environmental information systems, advancing the role of scientific communities, and promoting cooperation. The

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940 Article XXXVIII of Maputo convention.

941 AMCEN Dec. 14/9.

campaign should also aim to provide tools which may facilitate implementation, such as an explanatory guide to the convention and guidelines regarding elements of implementing national legislation. The interim Secretariat should also encourage consultations on the different options for the permanent Secretariat to be designated at the first meeting of the COP, as well as for the creation of the financial mechanism.

5.2.5 *AU convention for the protection and assistance of internally displaced persons of 2009*

The AU Convention for the protection and assistance of Internally Displaced Persons (IDPs) (hereinafter the AU Kampala IDPs Convention)[942] was created to address the lack of a binding international legal regime specific to IDPs.[943] The AU Kampala IDPs convention applies to displacement caused by a wide range of causes including conflicts, human rights violations and natural or man-made disasters.[944] Thus, people who are forced to migrate because of the effects of climate change are protected under the convention. This is an important Convention because it partly deals with human displacement which is a consequence of climate change.
The Convention states that:

> All persons have the right to be protected against arbitrary displacement. The prohibited categories of arbitrary displacement include but not limited to: ...forced evacuations in cases of natural or human made disasters or other causes if the evacuations are not required by the safety and health of those affected.[945]

Thus, the Kampala convention is a comprehensive legal instrument covering all phases of displacement from prevention to protection, assistance and durable solutions. The responsibility for the prevention of internal displacement and finding durable solutions for IDPs problems lies primarily with the concerned member state.[946] In the event that

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942 The convention was adopted in 2009 in Nairobi, Kenya.
943 See the preamble.
944 Art 1(k).
945 Art 4(4)f.
946 See Arts 3 and 4 of Kampala Convention of 2009.

the member state is unable or unwilling to effectively carry out these obligations, it is expected to enable and facilitate the assistance of the African Union in accordance with the 2002 Constitutive Act of the African Union.[947]

The objectives of the AU Kampala IDPs Convention include the promotion of local, national and regional measures to mitigate, prohibit and eliminate the root causes of displacement;[948] the establishment of a legal framework for the prevention of arbitrary displacement;[949] the creation of a legal framework for cooperation and solidarity among states;[950] the provision of a legal instrument for the protection and assistance of IDPs;[951] and provision for the role and responsibility of states.[952] As already shown above, the convention includes the provision of a legal framework for the protection of persons displaced because of natural disasters "which have devastating impact on human life, peace, stability, security, and development."[953]

Drawing from articles 2 and 3, the primary duty and responsibility of protecting and assisting IDPs lies with state parties.[954] Furthermore, the protection and assistance of persons displaced due to the consequences of climate change lies with state parties as well.[955] As observed above, the obligations of state parties include cooperation with a concerned state party or the conference of parties.[956] State parties are also required to assist and protect IDPs by taking measures to safeguard against environmental degradation where IDPs are located.[957] Parties are further required to enable IDPs to

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947 See Art 4(h) of the Constitutive Act of the AU of 2002.
948 Art 2(a).
949 Art 2(b).
950 Art 2(c)
951 Art 2 (d).
952 Art 2 (e).
953 Art 3(4)..
954 Art 5(1).
955 Art 5(4).
956 Art 5(2).
957 Art 14(1).

make a free and informed choice to return to their places of origin, integrate locally, or relocate.[958]

The crucial challenge facing the Kampala IDPs Convention is implementation. The Convention does not have effective enforcement mechanism to implement it. The implementation is performed by state parties through their incorporating the convention in their respective domestic laws.[959] The AU ensures the compliance of member states through a regular conference of parties,[960] regular reporting under the African Charter on Human and Peoples Rights,[961] and under an African Peer Review Mechanism.[962] However, member states are to provide funding for the implementation. This may be difficult as many African countries are poor. They also lack the strong national systems required to implement the convention. The Convention requires member states to fund the implementation "to the extent possible" and without prejudice to receiving the international support'.[963] This provision may make state parties to the Convention too dependent on international support. However, there is a lack of strong international support in this regard.[964]

5.2.5.1 Addressing climate change-induced IDPs through environmental refugee discourse

One of the ways to address climate change-induced migration could be through "environmental refugee" discourse, because climate change displacement is both a result of and has an impact on the natural environment.[965] Legal scholars suggest applying environmental refugee discourse to address the plight of climate change-

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958 Art 12.
959 Art 3(2)(d).
960 Art 14(1-3).
961 Art 14(4).
962 Art 14(4).
963 Art 3(2).
964 Williams A "Turning the tide: Recognising climate change refugees in international law 2008 30/4 *Law and Policy Journal* 508.
965 Williams (2008) 30/4 *Law and Policy Journal* 508.

induced migration in two ways: the expansion of the definition of "refugees" and the creation of an international legal instrument to protect IDPs caused by environmental degradation.[966]

The concept of environmental refugees has now been in place for more than twenty years.[967] While the precise definition of an environmental refugee varies from one scholar to the next, there are characteristics common to all interpretations. During the late 1980s three categories of environmental refugees were identified, which categories formed the basis of subsequent discussion on the topic.[968] The first category includes those people temporarily displaced due to temporary environmental stress but who return to their habitat once the area has been rehabilitated, such as following a natural hazard or environmental accident. Second, environmental refugees might include those permanently displaced who have resettled elsewhere due to permanent environmental change that is often man–made, such as large dam projects. The third category of environmental refugees includes people who have migrated (either temporarily or permanently) in search of a better quality of life as a result of a progressive degradation of their environmental resources.[969] This often represents a more subjective classification whereby "the migration depends mainly on the refugees` perception of the change and their ability to cope with its consequences".[970]

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966 Falstrom "Stemming the flow of environmental displacement: Creating a convention to protect persons and preserve the environment" 2001 13 *Colorado Journal of International Environmental Law and Policy* 1; Keane "The environmental causes of migration: A search for the meaning of 'environmental refugees'" 2003-2004 16 *Georgetown International Environmental Law Review* 209 and Scholtz W "The day after no tomorrow? Persons displaced environmentally through climate change: AU law to the rescue?" 2010 *South African Yearbook of International Law* 37.

967 See Saunders P "Environmental refugees: Origins of a construct" in Scott P and Sullivan S (eds) Political *ecology: Science, myth and power* (2000 Oxford University Press New York); and Conisbee M and Simms A *Environmental refugees: The case for recognition* (New Economics Foundations London 2003).

968 Gillespie A "Small island States in the face of climatic change: The end of the line in international environmental responsibility" 2004 22 *UNCLA Journal of Environmental Law and Policy* 107-129.

969 See El-Hinnawi (1985) Environmental refugees 4-5.

970 Williams (2008) *Law and Policy Journal* 509.

However, it is worth noting that the idea of communities migrating (or indeed collapsing) as a result of environmental change or development is not new.[971] Traditionally as natural resources become exhausted within one area, seasons change, agricultural crops become depleted, or the natural resources themselves migrate, people have relocated in order to better avail themselves of local natural resources. The question is, to what extent is environmental refugees recognised and what protection might such recognition offer?

Application for legal recognition as a refugee has traditionally been channeled via the 1951 Refugee Convention.[972] Created to respond to the escalating flow of refugees at that time, the Convention adopts a restrictive definition of "refugee," thereby limiting refugee status to a fairly narrow legal interpretation.[973] Article 1A requires that there must be a "well-founded fear of being persecuted" and the reasons for persecution are limited to "race, religion, nationality, membership of a particular social group, or political opinion." The definition does not extend to refugees created by environmental change.

Cooper argues that environmental refugees do currently fit within the Refugee Convention because the government-induced environmental degradation is a form of persecution and, furthermore, that such persecution is taking place for reasons of the membership of environmental refugees in a social group.[974] One of the examples in support of this argument is the desertification of the Sahel, where it is claimed that the governments of the Sahel region "could have enacted policies and programmes to cut population growth, to improve agricultural techniques, or to heighten food production."[975] Although this argument may have some academic merit, it is unlikely to be accorded

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971 See Diamond J *Collapse: How societies choose to fail or survive* (Penguin London 2005).

972 For a detailed explanation see McAdam J *Complementary protection in international refugee law* (Oxford University Press Oxford 2007).

973 Initially, the 1951 Refugee Convention applied only to "events occurring before 1 January 1951", but it was later extended by the 1967 Protocol Relating to the Status of Refugees. See Williams (2008) *Law and Policy Journal* 507.

974 See Cooper J "Environmental refugees: Meeting the requirements of the refugee convention" 1998 6 *New York University Environmental Law Journal* 480-529.

975 Cooper (1998) *New York University Environmental Law Journal* 504-507.

any significant credibility even if one adopts the most liberal approach to treaty interpretation, given the object and purpose of the agreement and the narrow applicability of the Refugee Convention intended by the parties. Although the government involvement in the environmental crisis might inspire claims of liability in respect of the refugee problem, it remains unlikely that such behaviour could be equated to and categorized with traditional legal notions of persecution (based on race, religion, and nationality, for example) provided for by the Refugee Convention. Moreover, the definition does not leave open for interpretation the reasons for persecution, but instead it includes an exhaustive list of causes - "race, religion, nationality, membership of a particular social group or political opinion" - clearly setting the boundaries of the legal application of the Refugees Convention. Formulating definitions that can be useful as conceptual tools is clearly necessary.

However, there may be a risk of developing hierarchies that may be used for political manipulation and to create difficulties for people trying to find refuge.[976] Also, governments oppose the idea of extending the definition of refugees, arguing that such a move would open the "refugee floodgates",[977] thereby devaluating the current protection for refugees.[978]

It is difficult to define refugees in such a way as to encompass environmental or climate change refugees as displacement occurs because of diverse causes, which could be broadly, described as environmental, political, and economic. Scholtz favours Eli-Hinnawi's definition of refugees as a useful tool to establish the group of vulnerable people where the survival of the group is at stake.[979] However, the majority of climate

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976 Lassailly JV "Environmental refugees" 1992 *Canada's Periodical on Refugees* Vol. 12 No. 1, 1-10 and Otunnu O "Environmental refugees in sub-Saharan Africa: Causes and effects" *Canada's Periodical on Refugees* Vol. 12 No. 1, 11-18.

977 See William 2008 *Law and Policy Journal* 509.

978 Keane D "The environmental causes and consequences of migration: A search for the meaning of 'environmental refugees'" 2004 *Georgetown International Environmental Law Review* 16: 209-223.

979 Scholtz W "The day after no tomorrow? Persons displaced environmentally through climate change: AU law to the rescue?" 2010 *South African Yearbook of International Law* 39.

change or environment-induced migrants are internally displaced and not externally displaced. Expanding the definition in this way would therefore exclude the majority of such displaced persons.[980]

The complications of reconciling most environmental refugees with the statelessness requirement of the Refugees Convention makes the concept of "internally displaced persons" (IDPs) a possible alternative. Although the UNHCR does not have a specific mandate under the 1951 Refugees Convention in respect of IDPs, it employs Article 9 of the Statute of the Office of the High Commissioner to legitimize its involvement with IDPs. Article 9 authorises the Commissioner to "engage in such activities...as the UN General Assembly may determine, within the limits of the resources placed at his disposal."[981] In 1994 the UN General Assembly endorsed the competence of the office of the High Commissioner to include groups of forcibly displaced persons who do not fall either individually or collectively within the scope of the definition of a refugee.[982]

IDPs are defined by the UNHCR *Guiding Principles on Internal Displacement*[983] *as*

> Persons or groups of persons who have been forced or obliged to flee or to leave their homes or places of habitual residence, in particular as a result of or in order to avoid the effects of armed conflict, situations of generalised violence, violations of human rights or *natural or human–made disasters*, and who have not crossed an internationally recognized state border.

This definition encapsulates the concept of environmental refugees to the extent of any displacement that occurs internally, as opposed to crossing State borders. The UNHCR`s *Guiding principles on Internal Displacement* identify rights and guarantees for the protection of those suffering forced displacement. While the Principles reflect and are consistent with international human rights law and international humanitarian law,

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980 Scholtz (2010) *South African Yearbook of International Law* 41.
981 See UNGA 1950.
982 See UNGA 1994.
983 See paragraph 2 of the UNHC Guiding principles on internal displacement of 1998.

they recognize that it is national authorities that have the primary duty and responsibility to provide protection and assistance to IDPs.

Although not a binding legal source, the Guidelines have been recognised by the UN General Assembly as "an important international normative framework for the protection of internally displaced persons".[984] Notably, the Guidelines begin by recognizing that all authorities and international actors must "prevent and avoid conditions that might lead to the displacement of persons" and guarantee that "every human being shall have the right to be protected against being arbitrarily displaced".[985] However, following this, the Guidelines outline principles of non-discrimination, protection during displacement, and guidance on return, resettlement and reintegration in cases where displacement is unavoidable.

While the IDP Guidelines lack the formal legal status enjoyed by the Refugee convention, their value perhaps is most significant to the extent that national IDPs policies incorporate and build upon the international principles. This allows for states to be flexible in national implementation both in terms of timing and also regarding the extent to which substantive commitments are introduced, thereby allowing for domestic IDP policies to develop at their own pace and in response to localized concerns and events.

The IDPs UNHCR framework may offer greater value in terms of recognising rights and protection than the more traditional system established under the Refugee Convention. The definition of IDPs envisages people displaced as a result of natural or human-made disasters, a category into which environmental refugees are clearly intended to fit. However, while the IDP framework is largely conducive to recognising and supporting such refugees, it is limited in its applicability as a result of its nonbinding legal status. A possible resolution to this obstacle might be to focus on promoting the needs of

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984 See UNGA 2005 para 132
985 See principles 5 and 6(1).

environmental refugees through national IDP policies that enjoy greater legal influence, albeit only at the domestic level. In this way environmental refugees may be better recognised and their need more appropriately met by a localized and more responsive framework. This approach could then be further bolstered by establishing some form of international coordination in respect of the various national polices to ensure that basic standards and a uniform approach to environmental refugees are adopted within the IDPs framework. The UNHCR would appear the obvious international body to take responsibility for such a role, especially given its expanded mandate regarding IDPs. Other organisations might include the intergovernmental International Organisation for Migration, or the Internal Displacement Monitoring Center.

The biggest shortcoming of employing national IDPs policies in this situation is that displacement will be recognised only to the extent that it affects IDPs; no trans-border displacement will be considered. While it may be argued that those likely to be considered environmental refugees are more likely to suffer from internal than from trans-border displacement (i.e., a higher proportion of those suffering environmental displacement will do so within national boundaries), such an approach fails to appreciate the true extent of the problem (internal displacement may well lead to trans-border displacement in the long term as environmental change continues), and thus offers little more than a temporary solution. There still remains a need for such individuals to be recognized and protected based on their own intrinsic value and circumstances, rather manipulating and engineering them into a pre-existing framework designed for other purposes. Moreover, when one considers the wisdom of employing environmental refugee discourse to address those displaced by climate change, it must be acknowledged that there remains a certain degree of skepticism surrounding the development and understanding of the term environmental refugee itself.[986]

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986 Black R "Environmental refugees: Myth or reality" *New Issues in Refugee Research* (Working Paper No. 34) UNHCR Geneva.

Some scholars suggest that the international convention or protocol should be negotiated to provide coordination of the existing assistance and protection of IDPs and the environment.[987] That convention or protocol could be based on principles such as the duty to prevent and also based on international environmental law instead of international refugee law.[988] While this approach may have merit, its implementation may be difficult due to North-South divide in the conclusion of multilateral treaties.[989]

Falstrom on the other hand suggests the establishment of the international IDPs treaty based on the framework of the Convention against Torture and Other Cruel, Inhuman and Degrading Treatment or Punishment.[990] Her argument is that such a treaty would focus on the protection of the environmentally displaced persons and also require state parties to prevent the causes from occurring.[991] According to her, states would, on a temporary basis, take necessary action to protect migrants who arrive in their countries due to the listed environmental problems. She contends that these migrants may return to their countries of origin once the reason for the protection has ended and safety has been resumed.[992]

It is observed that Falstrom's proposition may be useful in addressing climate change-induced migration through environmental refugees discourse. I concur with Lopez, who finds Falstrom's proposition useful and viable, since it provides a concrete framework for dealing with environmentally displaced persons.[993] Scholtz also agrees with Falstrom's proposition and finds it a very creative solution for addressing

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987 See McCue "Environmental refugees: Applying international environmental law to involuntary migration" 1993-1994 6 *Georgetwon International Environmental law Review* 151.

988 McCue (1993)179.

989 Scholtz (2010) *South African Yearbook on International Law* 41. See also Ntambirweki "The developing countries in the evolution of an international environmental law" 1990-1991 14 *Hastings International and Comparative Law Review* 905.

990 Falstrom "Stemming the flow of environmental displacement: Creating a convention to protect persons and preserve the environment" 2001 13 *Colorado Journal of International environmental Law and Policy* 1.

991 Falstrom (2001) 33.

992 Falstrom (2001) 22.

993 Lopez "The protection of enviromentally–displaced persons in international law" 2007 37 *Environmental Law* 365.

environmentally displaced persons.[994] However, Scholtz also levies a few criticisms at the proposal. First, he contends that Falstrom's proposition is based on the Torture Convention, which deals with a threat from States. In the case of environmentally displaced persons, the cause of the threat may arise from the actions of states or natural disasters or both, but not often from overt threats.[995] Second, the proposition focuses on persons that cross international borders, while most environmentally induced migration occurs within the state.[996] Third, returning to the state of origin after the place has become safe may be difficult in a situation where environmental degradation is of an irreversible nature.[997] I agree with Scholtz's view that in this situation, universal state cooperation would be very important.[998]

Although the AU Kampala convention on IDPs is the first regional legal instrument in the world that imposes on states an obligation to protect and assist IDPs, it faces numerous challenges.

The definition of IDPs under the Kampala convention lacks legal clarity. For example, pastoralist communities in Africa move around not only in search of water and grazing land, but also in search of security. Migration for these communities is one of the coping and survival mechanisms when they are faced with natural and man-made problems. The questions could be, can they be treated as IDPs? If so could they claim assistance and protection from their state or the international community including the UN and AU? Pastoralists in Africa[999] cross borders without identifying themselves as IDPs or refugees, even if the cause of their migration is violence, famine or drought. They do not identify themselves as IDPs or refugees because seasonal mobility is their way of life which, strictly speaking, does not make them refugees or IDPS, grant them status as such

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994 Scholtz (2010) *South African Yearbook of International Law* 42.
995 Scholtz (2010) 42.
996 Scholtz (2010) 42.
997 Scholtz (2010) 42.
998 Scholtz (2010) 42.
999 Good examples may be found in Kenya, Tanzania, Somalia, Ethiopia and Sudan.

To the pastoralist communities of Africa borders are meaningless and an external imposition, and state protection is alien to them. They often join their ethnic community[1000] across the border in search of water, food or land for grazing. Immobility could uproot them from their way of life. In this situation, the assumption that people are displaced when they are not rooted in one place is wrong, because the assumption disregards pastoralist African communities, and implicitly assumes that all displacements are bad. This makes the concept of IDPs under the Kampala convention problematic. It is inappropriate to place in one category all people who seem to be on the move, thus disregarding the diversity of the causes of their displacement. It is my opinion that there should be a clear legal definition of IDPs that reflects a diversity of causes, the nature of the mobility, and the impact of the displacement.

Moreover, the implementation of the Kampala convention may be difficult to achieve due to lack of a clear institutional framework to ensure the protection of IDPs and a lack of funding.[1001] One of the positive features of the Kampala convention is the fact that it encourages and obliges state parties to cooperate in cases where they do not have sufficient funds to ensure the implementation of the Convention. The cooperation of states and all other actors is very important in addressing the consequences of climate change.

Again, the Kampala IDPs Convention may not provide a comprehensive solution to the problem posed by environmentally displaced persons because it does not address trans-border displacement. Climate change may result in trans-border displacement. As described above, some African communities do not really care about crossing International borders in cases of disaster. Thus, the Kampala convention ought to have

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1000 A typical example is the Maasai community of East Africa. This ethnic group is found in almost all East African countries. They often move in this regard from one country to another without following formal immigration rules.

1001 Article 3(2) requires parties to provide funding for the protection and assistance of IDPs.

extended to trans-border displacement in order to serve as a comprehensive solution to the problem of environmentally displaced persons in Africa.[1002]

The Kampala IDPs convention can play a vital role in addressing climate change-forced migration if the AU could foster the will of member states to implement it. First, State parties are responsible for the protection of persons displaced by climate change.[1003] Second, the responsibilities of parties entail, *inter alia*, an obligation of cooperation of concerned states or of the conference of parties.[1004] Where parties lack enough resources for the adequate protection and assistance of IDPs, they have an obligation to cooperate to seek the assistance of international organisations, international agencies, civil society organisations and other relevant actors.[1005] This provision is very important because most African countries are poor and therefore may lack adequate resources to protect and assist IDPs. This provision should not be used as an excuse to justify inadequate protection and assistance. However, financial support from developed countries to strengthen the implementation is also very important.[1006]

5.3 REC's normative framework relating to climate change

Regional Economic Communities (RECs) are intergovernmental organizations set up by groups of countries to foster stronger economic ties and cooperation.[1007] The RECs in Africa group together individual countries in sub-regions for the purposes of achieving greater economic integration. As seen in Chapter Four, most of Africa's RECs were established as a response to the stagnation of the economic development of individual countries that resulted from their having small national markets and weak production

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1002 See Scholtz (2010) *South African Yearbook of International Law* 50.
1003 Art 5(4).
1004 Art 5(2).
1005 Art 5(6).
1006 Scholtz (2010) *South African Yearbook of International Law* 48.
1007 Scholtz W "Environmental harmonization in the SADC region: An acute case of asymmetry" in Meessen KM, Bungenberg M & Putter A (eds) *Economic law as an economic good* (Economic Law Publishers 2008) 385.

structures. This economic stagnation was further aggravated by political instability and widespread conflict.[1008]

RECs' roles in responding to climate change are vital because they cooperate with the AU to strengthen peace, security and stability and to achieve continental economic and social development. The discussion on the RECs' role in addressing the impacts of climate change is relevant because the AU has given them a special role[1009] in the achievement of the AU's objectives, which include sustainable development. As stated in Chapter Four, both he Abuja Treaty establishing the AEC and the Constitutive Act of the AU regard RECs as "building blocks" or "pillars" of the AU. Thus, RECs can play a vital role in the protection of the environment.

This section of the thesis examines and analyses RECs' treaties and related protocols in order to present their normative legal frameworks with a view to establishing whether or not these laws recognise and adequately address climate change and sustainable development in the respective sub-regions. The treaties and protocols of only some RECs will be examined, and they will serve as examples of the rest.[1010]

5.3.1 Southern Africa Development Community (SADC)

The Southern African Development Community (the SADC) is an REC consisting of Angola, Botswana, DRC, Lesotho, Madagascar, Malawi, Mauritius, Mozambique, Namibia, Seychelles, South Africa, Swaziland, Tanzania, Zambia and Zimbabwe. The

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1008 Mulat T "Multilateralism and Africa's regional economic communities" *Journal of World Trade* (1998) 32(4) 115-138 and Boas M "The trade-environment nexus and the potential of regional trade institutions" in Breslin S, Hughes CW, Phillips N and Rosamond B Eds *New regionalisms in the global political economy* (Routledge London 2002) 48-65.

1009 RECs are regarded as the 'building blocks' of the AU and AEC.

1010 The Southern African Development Community (SADC), the East African Community (EAC) and the Economic Community of West African States (ECOWAS).

community was established by the Treaty of the Southern African Community in 1992.[1011]

The SADC and the other regional economic communities played a central role in the establishment of the AEC.[1012] The RECs lie at the very core of the goals and principles of the AEC. The SADC protocols, together with international and regional instruments, make provision for environmental protection and conservation within the SADC region. These are briefly discussed in the next section.

5.3.1.1 The Treaty of the Southern Africa Community

There are several provisions contained in the Treaty of the Southern Africa Community, and subsequent protocols that explain the role that the SADC could play concerning climate change.

Article 5 of the Treaty outlines the objectives of the SADC. Two parts of Article 5 refer to sustainable development. First, subparagraph 1(a) states that the SADC will:

> promote sustainable and equitable economic growth and socio-economic development that will ensure poverty alleviation with the ultimate objective of its eradication, enhance the standard and quality of life of the people of Southern Africa and support the socially disadvantaged through regional integration.

1011 This Treaty has been amended several times. A good example is the agreement amending the Treaty of the SADC which entered into force in 2001. The amendment was to incorporate the recommendations from the SADC report on the review of the operations of SADC institutions. See Saurombo A "The role of South Africa in SADC regional integration: The making or braking of the organization" 2010 *Journal of International Commercial Law and Technology* vol 5 issue 5 124.

1012 Art 28(1) of the Treaty Establishing the African Economic Community, <http://www.africa-union.org/> [AEC Treaty] (signed in Abuja, Nigeria, on June 1991 at the twenty-seventh ordinary session of the Assembly). The treaty entered into force on 12 May 1994. At present, a total of fifty-two countries have signed the treaty and forty-eight countries have signed and ratified it.

This language indicates a regard for sustainable development that is implicit in the primary objectives of poverty eradication and socio-economic development. Along the same lines, subparagraph 1(g) reads that the SADC will: "...achieve sustainable utilization of natural resources and effective protection of the environment".[1013]

Thus, the provisions of the Treaty provides for sustainable development. They are important here, because the inference may be drawn that the SADC will need to curb the effects of climate change in order to achieve sustainable development.[1014]

The vision and mission of the SADC is, *inter alia*, of a common future within a regional community that ensures economic wellbeing, improvement of the standard of living, and equity for all. It is my opinion that the vision and mission of the community cannot be achieved if climate change issues are not addressed properly.[1015]

The SADC Treaty is supported by protocols, declarations and memorandums of understanding in order to govern the operations of the community in terms of the treaty's policies, programmes, and actions. [1016] Whereas the SADC Treaty is the supreme framework law of the community,[1017] protocols complement it and are binding on each member state. The SADC has a number of protocols but does not have a Protocol on the Environment and Natural Resources. A Protocol on Environment and Natural Resources could be important as a policy document dealing with the

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1013 Art 5 of the Treaty of the Southern Africa Community 1992.

1014 The vision of the SADC is, *inter alia*, that of a common future within a regional community that ensures economic wellbeing, improvement of the standard of living and equity for all. It is my opinion that the vision and mission of the community cannot be achieved if the climate change issues are not addressed properly.

1015 For the SADC's vision see http://www.sadc.int/, (accessed on 20 December 2012).

1016 Examples of SADC Protocols are the protocol on the control of firearms, ammunition and other related materials 2001, the protocol against corruption 2001, the protocol on culture, information and sport 2001, the protocol on combating illicit drugs 1996, the protocol on education and training 1997, the protocol on energy 1996, the protocol on extradition 2002, the protocol on the facilitation of the movement of persons 2005, the protocol on fisheries 2001, the protocol on health 1999, the protocol on immunities and privileges 1992, the protocol on legal affairs 2000, and the protocol on mining 1997, to mention but a few.

1017 See Art 10 (2) and (3) of the SADC Treaty. SADC protocols implement the Treaty. See also Ruppel 2012 *SADC Law Journal* 25.

implementation of the AU's climate change programmes at sub-regional level. However, some of the existing protocols make reference to climate change. These are the Protocol on Forestry, the Protocol on Shared Water Sources, the Protocol on Energy and the Protocol on Transport, Communications and Meteorology.

5.3.1.2 The SADC protocols

Although the SADC does not have an environmental and natural resources protocol, it has several protocols that have potential relevance to climate change. These are the Protocol on Forestry,[1018] the Protocol on Shared Watercourses,[1019] the Protocol on Energy, and the Protocol on Transport, Communications and Meteorology. Apart from the provisions and objectives outlines in the SADC Treaty (and discussed above), the SADC legal regime becomes responsive to environmental concerns through these Protocols as well. The Protocols are instruments by means of which the SADC Treaty is implemented,[1020] and they have the same legal force as the SADC Treaty itself. A protocol comes into force after two-thirds of the SADC member states have ratified it.[1021]

5.3.1.2.1 The SADC protocol on forestry

The SADC Protocol on Forestry constitutes a set of rules or principles agreed upon by SADC member states on how to integrate and cooperate among themselves in order to commonly conserve and manage SADC forests and woodlands for the benefit of the region`s peoples. Within the Protocol on Forestry in particular, there is compelling language that bears a striking resemblance to certain Rio Declaration Principles which are also reflected in the UN Framework Convention on Climate Change (UNFCCC). For instance, sub-paragraph 1(a) of Article 3 under "objectives" states that the SADC

1018 SADC Protocol on Forestry 2002.
1019 The revised SADC Protocol on Shared Watercourses, 26 July 2008.
1020 Art 10(3) of the SADC Treaty.
1021 Ruppel (2012) *The SADC Law Journal* 246-280.

will "promote the development, conservation, sustainable management and utilization of all types of forests and trees".

Phrases such as "promote the development" and "sustainable management" suggest an adherence to the key concept of sustainable development.[1022] Moreover, sub-paragraph 2 of article 4, which is entitled "principles," declares that:

> State Parties shall have, in accordance with the Charter of the United Nations and the principles of international law, the sovereign right to use their forest resources to meet their environmental and sustainable development needs and a responsibility to ensure that activities within their jurisdiction or control do not cause damage to the environments and forest resources of other states.

Finally, subparagraph 7 of article 4 determines that: "State Parties shall not use lack of scientific certainty as a reason for postponing measures to prevent or minimize potentially serious or irreversible harm to forests."

The two provisions constitute a direct reference to the precautionary and sustainable development principles as reflected in both the Rio Declaration and the United Nations Framework Convention on Climate Change (UNFCCC).[1023]

1022 The Parties have a right to, and should, promote sustainable development. Policies and measures to protect the climate system against human-induced change should be appropriate for the specific conditions of each Party and should be integrated with national development programmes, taking into account that economic development is essential for adopting measures to address climate change. See Article 3(4) of the United Nations Framework Convention on Climate Change 1992.

1023 The Parties should take precautionary measures to anticipate, prevent or minimize the causes of climate change and mitigate its adverse effects. Where there are threats of serious or irreversible damage, lack of full scientific certainty should not be used as a reason for postponing such measures, taking into account that policies and measures to deal with climate change should be cost-effective so as to ensure global benefits at the lowest possible cost. To achieve this, such policies and measures should take into account different socio-economic contexts, be comprehensive, cover all relevant sources, sinks and reservoirs of greenhouse gases and adaptation, and comprise all economic sectors. Efforts to address climate change may be carried out cooperatively by interested Parties. See Article 3 (3) of the United Nations Framework Convention on Climate Change 1992.

Thus, one of the key objectives of the SADC protocol on Forestry is to ensure effective environmental protection to safeguard the interests of both present and future generations.[1024] The protocol on Forestry urges states to adopt and use similar criteria and indicators for sustainable forest management in order *inter alia* to evaluate biodiversity in forests.[1025] In order to achieve the goals of the protocol on Forestry, provision is made for research and development[1026] as well as the exchange of information,[1027] and cooperation between member states is emphasized in Article 20.[1028]

The SADC Forestry Protocol was established to achieve one of the key objectives of the SADC: sustainable utilisation of natural resources and effective protection of the environment.[1029] The Treaty recognises forests and other biodiversity as key natural resources and as a major component of the environment, which should be sustainably managed for the benefit of the SADC communities.[1030]

To achieve the objectives of the Protocol, State parties are required to cooperate by:

> Assisting and supporting each other to address issues of common concern including deforestation, genetic erosion, climate change, forest fires, pests, diseases, invasive alien species, and law enforcement in a manner that makes the best use of the technical, financial and other resources in the region[1031]

1024 Protocol on Forestry, <www.sadc.int> (adopted in Luanda, Angola, on 3 October 2002). See Article 3(l)(c).

1025 Article 8(4) (b). Specific provision for the protection and cooperation in transboundary forests is made in Article 14 of the Protocol on Forestry

1026 Art 20.

1027 Art 21.

1028 Art 20 states: "I. State Parties shall endeavour to obtain the assistance and co-operation of other states and organisations in achieving the objectives of this Protocol. 2. State Parties shall, where appropriate, co-operate with other Member states that are not party to this Protocol."

1029 See Art 5(i) of the SADC Treaty of 1992.

1030 The SADC has nearly 400 Ha (approximately 40% of the total land area) of forest resources that need to be exploited for the development of the region to contribute to poverty reduction.

1031 Art 3(2) a of the SADC protocol on forestry.

Thus, the Protocol recognises climate change as one of the issues of "common concern" among member states of the SADC and requires state parties to cooperate in order to achieve the objective of the Protocol. Forests act as carbon sinks, soil protection, and as a habitat for ecotourism.[1032] The forestry protocol implementation strategy outlines how Member States shall cooperate to promote forestry development in the SADC region. Carbon emissions from deforestation and forest degradation are over five times higher than those from other sources, making sustainable management and the conservation of forests, as well as the management of fires, particularly urgent mitigation measures in the SADC region.[1033] This gives the forestry protocol a great deal of importance and legitimacy in the SADC.

In May 2009 the SADC member states agreed to develop a regional programme of Reducing Emissions from Deforestation and Forest Degradation (REDD).[1034] The purpose of this programme was to improve the capacity of SADC Member States to manage and benefit from their national REDD programmes through regional cooperation and also to increase the influence of the SADC as a region on the international processes on REDD and Climate Change.[1035] Furthermore, the SADC also approved the SADC support programme on Reducing Emissions from Deforestation and Forest Degradation (REDD+). The purpose is to contribute to the sustainable management of the forests of the SADC and also to contribute to poverty reduction and sustainable development.[1036] REDD+ is aimed at supporting SADC member states in their efforts to curd climate change and achieve their development goals. The SADC forestry protocol is therefore an important legal instrument in addressing climate change

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1032 Miller CI, Stephenson NL and Stephens SL "Climate change and forests of the future: Managing in the face of uncertainty" 2007 17/8 *The Journal of Ecological Applications* 2145-2152. For detailed explanation of the climate benefits of forests see Bonan GB "Forests and climate change: Forcings, feedbacks and the climate benefits of forests" 2008 *Science* 320.

1033 SADC (2010) "The impact of climate change on the poverty situation in the SADC" summary background document available at www.sadc.int/index/browse/page/108 (accessed on 15 January 2012)

1034 For more information about the SADC REDD programme, visit http//www.sadc.int/REDD (accessed on 20 January 2012)

1035 Ruppel (2012) SADC Law Journal 26.

1036 This programme was approved by the SADC Ministers responsible for environment and natural resources in May 2011.

at sub-regional level. The treaty may also be used to guide the SADC member states in implementing AU climate change programmes relating to forestry management in the region.

However, the implementation of the Protocol may face a few challenges. The enforcement is weak in the region. Although the SADC Protocol on Forestry is legally binding in that a state party could be taken to court and compensation could be sought, the SADC Tribunal is not operational at the time of writing.[1037] The second challenge is poor funding. The implementation of the Protocol is effected by the member states of SADC. In most cases, national budgets for forestry are being cut and allocated to other sectors, and the revenue generated from the forests is not being ploughed back into the forest sector.[1038] The lack of financial resources allocated to the forest sector leads to high dependence on conditional donor funding. The third challenge is the lack of transfer, access to and use of environmentally sound technologies. Although there has been an improvement in technology transfer as well as adoption of clean technologies such as solar and wind energy,[1039] there is limited access to information on available technology, and the SADC member states are not capable of keeping pace with rapid changes in technology.[1040] The last challenge is capacity building, which is taking place in the field of sustainable forest management, but in general there are limited financial and human resources as well as infrastructure for implementing sustainable forest management.[1041]

1037 Ruppel (2012) *SADC Law Journal* 26.The SADC Tribunal was dissolved in 2010 because of Zimbabwe's constant non-compliance with its judgments. See Mike Campbell and Another (PVT) *Limited v The Republic of Zimbabwe* SADC (T) 2/2007.

1038 SADC "Input to UNFF8 by the Southern African Development Community" (2010) 3..

1039 SADC (2010) 4.

1040 Mubaiwa M "The SADC protocol on forestry: Can it stop mounting threats to the region's forests" (2010) available at www.mhmtl:file://:/SADC%20Forestry %202.mht (accessed on 28 July 2013).

1041 Mubaiwa (2010) 13.

5.3.1.2.2 The SADC protocol on shared watercourses

The second relevant protocol is the SADC Protocol on Shared Watercourses of 2000. The overall objectives of the Protocol are to foster closer cooperation for the judicious, sustainable and coordinated management, protection and utilisation of shared watercourses and to advance the SADC agenda of regional integration and poverty alleviation[1042] To achieve this goal the Protocol seeks to:

> Promote and facilitate the establishment of shared watercourse agreements and share watercourse institutions for management of shared watercourses;[1043] advance the sustainable, equitable and reasonable utilisation of the shared watercourses;[1044] promote a co-ordinated and integrated environmentally sound development and management of shared watercourses;[1045] promote harmonisation and monitoring of legislation and policies for planning, development, conservation, and protection of shared watercourses;[1046] and promote research and technology development, information exchange, capacity building and the application of appropriate technologies in shared watercourses management[1047].

Thus, the Protocol establishes an institutional framework of implementation with the establishment of a Committee of Water Ministers,[1048] a Committee of Water Senior Officials,[1049] a Water Sector Coordinating Unit,[1050] and a Water Resources Technical Committee.[1051] These institutions (also referred to as Water Sector Organs) have the primary mandate to monitor the application of the Protocol and the facilitation of the harmonisation of water law and policies among SADC member states.[1052] However, these institutions do not have a mandate to implement and enforce the Protocol on the member states, whose national laws are required to ensure that obligations stemming

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1042 See Article 2 (b).
1043 Art 2(a)
1044 Art 2(b).
1045 Art 2(c).
1046 Art 2(d).
1047 Art 2(e).
1048 Art 5(a) i and 5(c).
1049 Art 5(a) ii and 5(d).
1050 Art 5(a) iii and 5(e).
1051 Article 5(a)iv.
1052 Earle A and Malbender D "Water and the peaceful sustainable development of the SADC region" 2007 *Paper Produced for the Safer Project Project* 12.

from the Protocol are met.[1053] Instead, through these institutions, the Protocol guides and co-ordinates the process of cooperation and regional integration on transboundary watercourses. The SADC water sector organs are required to co-ordinate cooperation and the harmonisation of legislation, policies, strategies, programmes and projects.[1054]

The revised Protocol on Shared Watercourses of 2000 has resulted in the development of the Regional Water Policy of 2005, the Regional Water Strategy of 2006, the Regional Strategic Action Plan on Integrated Water Resource Development, and the Climate Change Strategy for the Water Sector.[1055]

The Climate Change Strategy for the Water Sector was developed in 2008 and was approved by the SADC Ministers responsible for water in 2011.[1056] The main goal of the Climate Change Strategy is to improve climate resilience through the strengthening and adaptation of the development and management of water resources in Southern Africa. The aim is to further develop the SADC shared water sector as a tool to decrease climate vulnerability, and to ensure that water management practices are well adapted to cope with increased climate variability.[1057] The Strategy recognises that the adverse impacts on water escalate to other water-dependent sectors such as energy, health and agriculture and thus adopts an integrated water resource management approach[1058] which is mainstreamed in the third phase of the SADC Water programme, which is a five-year implementation plan of the SADC Water Strategy.[1059]

Thus, the SADC Protocol on Shared Watercourses is an important way forward in promoting state cooperation and regional integration on issues of common concern

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1053 Art 5(2).

1054 Art 5(2) (a)ii.

1055 Earle A and Malbender D "Water resources of the SADC: Demands, dependencies and governance responses" 2012 African Center for Water Resource 11.

1056 SADC 'Climate change adaptation in SADC: A strategy for the water sector 2011 available on http://agriwaterpedia.info/index.php?title=Climate_Change_Adaptation_(CCA)_Strategy_in_SADC&oldid=4398 (accessed on 12 August 2013).

1057 SADC (2011) "Climate change adaptation in SADC'" 2.

1058 Global water partnership "Toolbox integrated water resources management" 2005 GWP Stockholm.

1059 SADC (2011) 3.

such as climate change. The Protocol contains the accepted key elements of international water law and makes mandatory the management of transboundary water resources in the SADC, such as equitable and responsible utilisation,[1060] the duty not to cause significant harm[1061] and the obligation to give prior notice of planned developments.[1062] Addressing the impact of climate change on water requires the cooperation of member states because it affects other sectors such as agriculture and health. The SADC Protocol on Shared Watercourses can therefore be an avenue to pursue and promote the cooperation of states and deep regional integration to facilitate climate change adaptation in the water, agriculture and related sectors both in the sub-region and in the continent as a whole.

However, a lack of capacity is the biggest challenge facing the implementation of the Protocol in the SADC. Although there are numerous professionals in water management in the region, there is an overall shortage of the human as well as the financial resources needed to fully meet the standards laid down in both the Protocol and in member states' legislation.[1063] Funding and capacity building is important for the implementation of climate change adaptation in the SADC water sector. The AU should influence negotiations under the UNFCCC to assist the SADC to facilitate funding for adaptation. It may also promote appropriate technologies for adaptation and the efficient use of the region's limited and sparsely distributed water resources.[1064] This may further strengthen water management institutions at both the SADC and continental levels, since these institutions are best placed to develop management solutions for transboundary water-courses.

1060 Art 3 (2), (3), (7)b and (8)a of SADC Protocol of Shared Watercourses of 2000.

1061 Art 3(10) a-c.

1062 Art 4 (a-i). See also SADC "Measures to address food security in the SADC region" 2010 Background paper SADC secretariat available at www.int/fanr/food_security/dcs/Measures (accessed on 15 January 2012).

1063 Manase 2011 "Impact of climate change on water in Southern Africa" 14.

1064 SADC "The impact of climate change on the poverty situation in the SADC" summary document available at www.int/index/browse/page/108 (accessed on 16 January 2012).

5.3.1.2.3 The SADC protocol on energy

One of the objectives of the SADC Protocol on Energy is to "strive to harmonise national and regional energy policies, strategies and programmes on matters of common interest based on equity, balance, and mutual benefit"[1065]. Thus, the Protocol outlines means of cooperation by SADC member states in the development of energy to ensure a secure and reliable energy supply and a minimization of costs.[1066] The Protocol requires the development and use of energy to be environmentally sound.[1067] To achieve the goal, the Protocol provides *inter alia* for cooperation in the development and utilization of energy in the sub–sectors of wood fuel, petroleum and natural gas, electricity, coal, new and renewable energy sources, and energy efficiency and conservation.[1068]

The Protocol also creates an institutional structure to facilitate the implementation.[1069] It establishes an Energy Commission[1070] consisting of a Committee of Ministers,[1071] a Committee of Senior Officials,[1072] a Technical Unit and Subcommittees.[1073] The Energy Commission is responsible for implementing the Protocol.[1074]

The Energy Sector Activity Plan of 2000 was prepared on the basis of a review of the SADC Treaty, the Protocol on Energy, the SADC Energy Cooperation Policy and the Strategy of 1997 in order to:

> position the energy sector such that the region can derive maximum benefits from a nationalization of resources and facilities in the region, and to develop initiatives that contribute to building the capacity of energy institutions in the region to participate

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1065 Art 3(1).
1066 Art 2.
1067 Art 3.
1068 Art 3(3).
1069 Art 4.
1070 Art 4(1) a.
10711071 Art 4(1) b (i).
1072 Art 4(1) b (ii).
1073 Art 4(1) b (iii).
1074 Art 4(1) c.

effectively in the future liberalization of the energy sector, as well as in the regional economy.[1075]

Energy issues are closely linked to key global challenges in the SADC region, including social development and poverty alleviation, environmental degradation, and climate change.[1076] Energy efficiency plays an important role in sustainable growth and development. Better energy efficiency can produce substantial benefits for both global economic growth and poverty reduction, as well as for adaptation to and the mitigation of the consequences of climate change.[1077]

The Protocol provides a framework for cooperation in the development of energy infrastructure and the creation of larger energy markets. The reason for moving towards regional energy cooperation include the presently uneven distribution of energy resources among countries, the need to optimise existing energy interrelationships, the achievement of low-cost solutions to energy constraints and the rising global energy prices, which boost the attractiveness of large hydropower project options.[1078] Energy can therefore be a key pillar supporting the member states' drive for development through regional cooperation.[1079] Regional cooperation in energy offers opportunities for the efficient utilisation of resources,[1080] but the implementation of the Protocol is poor since there have been severe power shortages in the region.[1081]

The SADC countries are required to integrate climate change policies in these matters, because climate change has a strong influence on energy supply.[1082] This will require a transition to sustainable energy, which would be an incentive to invest in climate-friendly

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1075 Magombo G "Technical report: Review of the SADC energy sector activity plan" 2009 SADC. See also Ruppel (2012) *SADC Law Journal* 25.

1076 Ruppel (2012) *SADCLJ* 26.

1077 Ruppel (2012) *SADCLJ* 27.

1078 Chanakira M "SADC regional economic integration in the energy industry" 2011 4 *Numero* 67.

1079 Glasure YU "Energy and national income in Korea: Further evidence on the role of omitted variables" 2002 24 *Energy Economics* 355-365.

1080 Tian J "Improving regional cooperation in energy today" 2009 *Regional Energy* ADB.

1081 Chanakira (2011) 69.

1082 Ruppel (2012) *SADCLJ* 27.

technology. This would be difficult to achieve,[1083] but the AU could solicit more funding during UNFCCC negotiations through taking a strong common position on climate change. Another avenue to pursue could be the CDM, under the climate change regime. This would also require the strong and coherent involvement of African countries in terms of establishing creative CDM national boards and other governance arrangements in order to facilitate CDM projects in the region.

Another challenge is that energy cuts across many sectors – including mining, forestry, agriculture, the environment, water, and industry, – and its supply therefore requires coordination.[1084] The Protocol provides for the coordination and harmonisation of the national legislation and policies of member states governing sustainable energy and supply as a solution.[1085] Harmonisation is a process which requires expertise and funding as well. It is therefore important for policymakers and government officials to be capacitated to translate international policy to national and local levels, and the other way round.

The SADC is hampered by inadequate funding, lack of progress in the development of policies and strategies for regional cooperation in science and technology, shortages in scientific and technological resources, and a lack of cooperation in science and technology between countries in the region.[1086] Another problem is the lack of adequate resources for member states to generate the necessary statistical information, as well as the absence of a legal instrument to regulate the quality of the statistics produced.

The collective approach is also lagging behind in the SADC regarding policy development and new legal frameworks in the area of environmental policy, governance and climate change. The SADC does not have a coherent, regional climate change policy. The existence of such a policy would be important in that it could guide the activities of the member states to ensure that their objectives are clearly defined and

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1083 Ruppel (2012) *SADCLJ* 28.
1084 Chanakira (2011) 70.
1085 Art 3(10).
1086 SADC RISDP report available at http://www.sadc.int/ (accessed on 15 January 2012).

pursued through commonly agreed upon strategies. A well-defined regional climate change policy should then be followed by an environmental and natural resources or climate change protocol to give the community the teeth requisite to enforce the policy.

Though timelines and milestones for achieving priority projects have been developed within the RISDP, the vesting of responsibility for monitoring climate change and the implementation of environmental policies and programmes in the SADC Secretariat need to be reviewed. Responsibility for monitoring these programmes appears to rest with SADC committees and stakeholders, and self-evaluation seems to be an approach suggested by the RISDP. However, an independent climate change and environmental policy monitoring body, with the necessary technical skills to monitor and review the implementation of these programmes objectively, might be more effective.

5.3.2 The East African Community

The treaty re-establishing the East African Community (the EAC) was signed in November 1999 and entered into force on 7 July 2000. The EAC is a resurrection of the original East African Community, which existed from 1967 to 1977, and comprised (then as now) Kenya, Uganda and Tanzania, with Rwanda and Burundi joining at the end of November 2006.[1087] The new EAC configuration is designed to ameliorate the asymmetrical distribution of benefits that characterized its predecessor, in terms of which only Kenya seemed to have benefited. Unlike the other regional integration initiatives, the EAC is keen to fast-track its integration agenda and has set out a broad and ambitious programme aimed at achieving both an economic and a political federation between its member states.[1088]

The EAC is projected to suffer some of the worst impacts of climate change. These impacts have already been observed through a rise in sea levels, which has led to

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1087 Kasaija PA "Regional integration: A political federation of the East African countries?" *African Journal of International Affairs* 2004 vol. 7 nos.1 &2 21-34.

1088 Kasaija (2004) *African Journal of International Affairs* 28.

infrastructure destruction along the coast, the submergence of small islands in the Indian Ocean, the intrusion of seawater into fresh water wells along the coast in Tanzania, beach erosion in Mombasa, Kenya, and rampant floods and droughts throughout the region. Mount Kilimanjaro's ice fields are slowly disappearing and climatologists predict that they will have completely melted at some time between the years 2015 and 2020 if the current climatological conditions continue.[1089]

Considering this background, it is important to examine how and to what extent the EAC has engaged in a strategic and cooperative approach to address climate change. The Policy on Climate Change is representative of the commitment of the partner states to address the challenges of climate change.

5.3.2.1 The Treaty for the establishment of the EAC of 1999

In the Treaty for the Establishment of the East African Community of 1999, the EAC dedicates an entire chapter to environmental issues.[1090] This chapter discusses environmental and natural resources issues,[1091] the management of the environment,[1092] the prevention of illegal trade in and the movement of toxic chemicals, substances and hazardous wastes,[1093] and the management of natural resources.
[1094]

Basically, chapter 19 of the EAC Treaty states that partner-states recognize that development can have negative impacts on the environment, which in turn can cause the destruction of the environment and the depletion of natural resources, and that a

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1089 See the EAC policy (2010) 1.
1090 Chapter 19, which is entitled "cooperation in environmental and natural resources management"
1091 See Art 111.
1092 See Art 112.
1093 See Art 113.
1094 See Art 114.

clean and healthy environment is a precondition for sustainable development.[1095] In order to achieve sustainable development, the partner-states realize that they must foster cooperation in the joint and efficient management and sustainable utilization of natural resources, in addition to coordinating their policies and actions for the protection and conservation of natural resources and the environment.

Under article 114 of this Treaty, the partner states agree to take concerted measures to foster cooperation in the joint and efficient management and the sustainable utilization of natural resources within the community for the mutual benefit of the partner states. In particular, the partner states are required by the Treaty to cooperate in development, the harmonization of policy and laws, and the adoption of common systems of natural resources management.

Although the EAC Treaty does not make direct reference to climate change, the wording of chapter 19 shows that the community is keen on protecting the environment. The challenge is the harmonisation and coordination of member states' policies and environmental laws to achieve sustainable development. The harmonisatio requires a strong, clear and feasible institutional structure and an adequate number of resourceful persons. The institutional structure that implements the environmental chapter of the EAC Treaty is perhaps found in the EAC Protocol on the Environment and Natural Resources.

5.3.2.2 The EAC protocol on the environment and natural resources management

The East African Community Protocol on the Environment and Natural Resources Management was created as an outcome of the Memorandum of Understanding for

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1095 See Art 114.

Cooperation on Environment Management of 1998, which was signed by the EAC Treaty of Establishment.[1096]

The main objectives of the Protocol align with those of chapter 19 of the EAC Treaty. They are to promote sustainable growth and development of the partner-states;[1097] foster cooperation for the management, conservation, protection and utilization of the environment and natural resources and deepen integration and poverty alleviation;[1098] promote capacity building and environmental awareness;[1099] promote shared responsibility and cooperation in the management of the environment and natural resources;[1100] and promote development and the harmonization of policies, laws and strategies for the environment and natural resources management to support sustainable development.[1101]

Undoubtedly, the more important and critical objective of the Protocol in the context of this work is for joint action among the partner-states to address climate change. Katembo argues that the new EAC encourages the pooling of regional resources and regional free trade.[1102] The protocol states:

> The Partner States commit themselves to ensure sound environment and natural resources management in the Community and to cooperate among themselves in realizing this obligation.[1103]

Climate change, being one of the challenges of globalisation, necessitates greater cooperation between countries to enhance sustainable development. The challenge in

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1096 See Art 142. The memorandum of understanding for cooperation on environment was signed on 22 October 1998 by Tanzania, Kenya and Uganda.

1097 See Art 5 (a).

1098 See Art 5 (b).

1099 See Art 5 (c).

1100 See Art 5 (d).

1101 See Art 5 (e)

1102 Katembo B "Pan Africanism and development: The East African community model" The *Journal of Pan African Studies* 2008 vol 2 n 4 111.

1103 See Art 6.

the EAC is establishing effective mechanisms to ensure the cooperation of the member states in order to enhance the enforcement of the protocol.

The protocol requires the partner states to develop and adopt an integrated approach to address the effects of climate change in the Community.[1104] This is supposed to be done through developing and harmonising the member states' laws, policies and strategies for mitigating the effects of greenhouse gas emissions and the manner and procedures for benefiting from the Clean Development Mechanism under the Kyoto Protocol and other similar climate change adaptation and mitigation activities and strategies;[1105] promoting the development and implementation of education and training programmes, including the strengthening of national human and institutional capacities on climate change;[1106] and developing strategies for the transfer, acquisition and adaptation of relevant technology to alleviate the pressure on fragile ecosystems and natural resources and contribute to the mitigation of climate change.[1107]

The protocol also requires partner states to develop and harmonize their polices, laws and strategies to protect human health, the environment and natural resources against the adverse effects resulting or likely to result from human activities which modify or are likely to modify the ozone layer.[1108] This is to be done through the cooperation of member states in the control and phasing out of ozone-depleting substances;[1109] conducting research and scientific assessments on human health, climatic effects, and other biological effects deriving from any modifications of the ozone layer;[1110] mitigating the consequences resulting from depleting the ozone layer, including the consequences to human health, organisms, ecosystems and materials useful to mankind, changes in temperature, changes in the structure of the atmosphere and the potential

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1104 See Art 24.
1105 See Art 24 (a).
1106 See Art 24 (b).
1107 See Art 24 (c).
1108 See Art 25.
1109 See Art 25 (a).
1110 See Art 25 (b).

consequences for weather and climate; and cooperating in the control of atmospheric pollution.[1111]

In order to implement its provisions, the protocol establishes the Sectoral Committee on the Environment and Natural Resources,[1112] which is made up of the directors for water, the environment, energy, wildlife, minerals, forestry, fisheries and the heads of the national environmental agencies of the partner states. More importantly, the protocol also calls for the partner-states to designate national focal points to help implement the protocol at a national level.[1113]

The two institutional mechanisms are designed to enable the harmonisation and coordination of member states' environmental policies and laws. This demonstrates that the implementation of the protocol lies in the partner-states' commitment and capacity to protect the environment. However, it is not clear how effective these structures are in practice at driving sustainable development and climate change policy. A lack of proper coordination by the EAC and of the financial resources to implement climate change policies may also impede the implementation of the protocol.

5.3.2.3 The EAC climate change policy

The East African Community Climate Change Policy was developed to address the adverse impacts of climate change and to respond to the growing concerns about the increasing threats of negative climate change impacts to development in the region.[1114] The policy fulfils one of the key objectives of the EAC: to develop policies and programmes aimed at widening and deepening cooperation among partner states.[1115]

1111 See Art 25 (c).
1112 See Art 37.
1113 See Art 39.
1114 The policy was developed as a result of a directive by the Heads of State of the EAC Partner States, at their 11th summit meeting, which was held in Arusha, Tanzania on 20th November 2009, to address the adverse impacts of climate change in the region.
1115 See Art 5(1) and the preamble of the EAC Treaty 1999.

The overall objective of the EAC Climate Change Policy (the EACCCP) is to guide Partner States and other stakeholders in the preparation and implementation of collective measures to address climate change in the region while assuring sustainable social and economic development. The policy is consistent with the provisions of the EAC Treaty, the EAC Protocol on the Environment and Natural Resources, and the United Nations Convention on Climate Change (the UNFCCC).

The policy contains three chapters: introduction, policy provisions and implementation. The introduction includes the background, rationale, goal, objectives and scope of the climate change policy as well as linkages to Partner States Strategies and other relevant policies.

The policy sets out guidelines for planning adaptation and mitigation actions designed to address climate change. In view of the high vulnerability of the region to the impacts of climate change, along with emerging associated challenges such as food security, the policy makes adaptation to climate change a priority for the EAC region.[1116]

Regarding adaptation, the policy aims at strengthening meteorological services and improving early warning systems; increasing preparedness for disaster risk management; the scaling up of the efficient use of water and energy resources, irrigation, crop and livestock production; the protection of wildlife and key vulnerable ecosystems such as wetlands and coastal, marine and forestry ecosystems; improving land use, soil protection, tourism, infrastructure and human settlement; and intensifying the control of diseases, vectors, and pests.[1117]

1116 See the EAC climate change policy 2010 6 available at http://www.eac.int/environment/index.php? (accessed on 25 January 2012) and Ruhangisa JE "Environmental law for sustainable development in East Africa" 2012 1/1 *TUMA Law Review* 12.

1117 EAC climate change policy 7.

The mitigation measures prioritized in the policy include reforestation, forest conservation and access to carbon credit facilities, the promotion of energy efficiency, efficient and sustainable crop and livestock production systems, the promotion of efficient transport systems, and waste management, while capturing opportunities for emission reduction in the region.[1118]

The policy also identifies sectoral policy statements which are considered to be cross-cutting. These include energy research and development, and awareness and Information management and sharing, among others.[1119]

Furthermore, the policy identifies monitoring, detection, attribution and prediction measures (designed to effectively monitor, detect and predict climate change scenarios and communicate weather and climate information) as adaptation measures to be adoped in all climate-sensitive socio-economic sectors. Actions prioritised to address this issue include supporting the modernisation of meteorological infrastructure in the Partner States, and promoting digitization and historical climate data rescue.[1120]

Capacity building, including financing and the transfer of technology, is the key element in the implementation of the policy. The policy emphasises that the development and transfer of technology are critical in achieving both the adaptation and mitigation programmes in the region. Key areas of focus in the field of technology include but are not limited to: enhancing technology development and transfer, including Hard and Soft technology; addressing technology transfer barriers; enhancing and supporting research and development capacity; and enhancing technology development and transfer within the EAC region through South-South and North-South cooperation.[1121] Other capacity building initiatives are: the introduction of climate change issues into school curricula;

1118 EAC climate change policy 17.
1119 EAC climate change policy 23.
1120 EAC climate change policy 25-27.
1121 EAC climate change policy 25.

awareness raising and skills training in negotiation skills, technology development and transfer; and carbon trading and the harnessing of indigenous technical knowledge.[1122]

As for the implementation, the policy requires each Partner State to develop a national policy, strategy and institutional arrangement to operationalise the provisions made in the policy such as enabling measures on financing (including the establishment of the EAC Climate Change Fund), capacity building, technology development, monitoring and evaluation.

The EAC Secretariat and other EAC Institutions are required by the policy to develop effective structures and engage appropriate capacities that will initiate, coordinate and follow up the implementation of this policy.

The EAC climate change policy could be a good example for other RECs to follow, except that it is not yet clear how the EAC will ensure its enforcement. First, it is a soft law and does not really bind member states. Second, its implementation, especially in the areas of capacity building and the transfer of technology, depends largely on the good will of developed countries. Hence there is no guarantee of funds to facilitate the implementation of the policy. Third, the EAC takes a coordination role, leaving the task of implementing the policy to member states. Some of the member states have not even had a national climate change policy until now.[1123]

The EAC partner-states have already begun implementing projects and programmes to address the impacts of climate change, which focus on both adaptation and mitigation measures. Four partner-states – Burundi, Rwanda, Uganda and Tanzania – have developed National Adaptation Programmes of Actions (NAPAs). NAPAs provide a process for Least Developed Countries (LDCs) to identify priority activities that respond to their urgent and immediate needs to adapt to climate change – those for which

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1122 EAC climate change policy 26.

1123 For example, while Kenya and Uganda have national climate change policies/strategies Tanzania and Burundi do not.

further delay would increase vulnerability and/or costs at a later stage.[1124] Kenya, which is not an LDC, has started preparing a Climate Change Strategy, which acknowledges important areas for both adaptation and mitigation activities in the country.

In addition, the EAC has identified potential mitigation options which can be used to foster economic development in the region while contributing to global efforts to reduce greenhouse gas emissions. The potential mitigation options include using geothermal energy along the Rift Valley, wind power, co-generation, hydropower, solar power, and the sequestration use of natural gases and methane recovery from waste management in various areas of the region. So far, three partner-states (Tanzania, Kenya and Uganda) have registered Clean Development Mechanism (CDM) projects under the Kyoto Protocol.[1125]

Although the EAC is one of the youngest African RECs, it has tried to incorporate climate change provisions in its environment and natural resources protocol and has managed to come up with a comprehensive climate change policy. Both the protocol and the climate change policy present a great opportunity for the EAC to respond to climate change in the sub-region. The EAC can use sub-regional integration to foster the cooperation of its member states in responding to climate change. The protocol and the climate change policy are the tools to facilitate such cooperation.

However, it is still unclear whether and how the harmonisation and coordination of the policies and laws of member states will be carried out in order to be able to implement the protocol and the climate change policy. Both the climate change policy and the protocol require the harmonisation and coordination of member states' policies and legislation as the main way of responding to climate change in the region. This may be

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1124 National adaptation programmes of action (NAPAs) in the United Nations Framework Convention on Climate Change 2011 available at www.unfccc.int/national_reports/napa/ (accessed on 23 January 2012).

1125 See the national and regional Initiatives in the East African Community environment, available at http://www.eac.int/environment/index.php/ (accessed on 25 January 2012).

difficult to achieve for many reasons. First, EAC member states use different legal systems. Whereas Kenya, Tanzania and Uganda use the common law system, Burundi and Rwanda use the civil law system.[1126] The EAC will have to harmonise the community's legal systems before the harmonisation of policies and laws can proceed. Second, it is not clear how the community will secure requisite funding, adequate human resources or technology to be able to implement the protocol and the policy. One of the most obvious challenges of Africa's RECs is the lack of adequate financial, technological and human resources to implement climate change policies and laws.[1127]

Critical to the harmonisation of the EAC member states' policies and laws is the related institutional structure and capacity.[1128] Although the EAC protocol on the environment and natural resources puts an institutional structure in place, it does not state how these institutions shall adequately coordinate and harmonise member states' policies and laws. In addition, the protocol does not empower the EAC to sanction a member state that does not comply with the EAC's directive in this regard. Thus, the harmonisation and coordination and policies and laws may be difficult, which would lead to poor implementation of the protocol. Given the dispersed, fragmented and antagonistic legal systems and laws of the EAC member states, clear and adequate coordination and harmonisation appear to be critical in order for the objectives of the community's climate change policy to be realised.

5.3.3 The Economic Community of West African States

Efforts to coordinate economic cooperation on a sub-regional level began in 1963, with a conference of industrial harmonisation in the sub-region of Lagos, Nigeria and the

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1126 See http://www.nationsencyclopedia.com/Africa/Burundi_JUDICIAL-SYSTEM.html (accessed on 28 January 2012).

1127 See Mutangandura G B "Sustainable development in southern Africa: Progress in addressing the challenges" *Journal of sustainable development in Africa* 2005 7/1 64.

1128 For detailed expositions on the harmonization and coordination of policies, see Cooper RN "Economic interdependence and coordination of economic policies" 1985 67 and Horne JP *et al* "Scope and limits of international economic cooperation and policy coordination" *IMF staff papers* 35(2) 267.

Niamey conference on economic cooperation in 1966.[1129] ECOWAS was established on May 28, 1975 to coordinate and promote trade, cooperation and sustainable development throughout West Africa. ECOWAS was established basically as a response to poverty and underdevelopment in the region[1130] and to provide the framework for the realization of immediate sustainable socio-economic and political development throughout the region.[1131]

ECOWAS was established by a treaty which was signed on 28 May 1975 and came into force on 5 November 1976. This treaty was revised and adopted on 24 July 1993 in Cotonou, Republic of Benin. The architects of ECOWAS were influenced by the overwhelming assumptions of traditional integration theories of economic benefits that could accrue to member states as a result of their participation in regional economic integration programmes.[1132] Thus, the rationale for ECOWAS' integration was to increase efficiency and gain the advantages of economies of scale within the integrating area. Obviously, this necessitates recognition of the link between economic development, sustainable development and the need to respond to the impacts of climate change in order to achieve the goals of integration.

5.3.3.1 The ECOWAS revised Treaty of 1993

The treaty provides that the objectives of ECOWAS are to promote cooperation and development in economic, social and cultural activities and indeed in all fields of human endeavour, to raise the standard of living of the peoples of the region, to expand and

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1129 See MacDonald AS "Regional integration in Africa: The case of ECOWAS" PhD thesis 2005 *University of Zurich Switzerland* 42.

1130 ECOWAS has 15 member states; Burkina Faso, Cape Verde, Cote d'Ivoire, Gambia, Ghana, Guinea, Guinea Bissau, Liberia, Mali, Niger, Nigeria, Senegal, Sierra Leone and Togo.

1131 Cowell F "The impact of ECOWAS protocol on good governance and democracy" *African Journal of International and comparative Law* 2011 19/2 331-342.

1132 MacDonald (2005) 46. See also Jaber TA "The relevance of traditional integration theories to LDC's" 1979 *Journal of Common Market Studies* vol 9 no. 3 249-265.

maintain economic growth and stability, to coordinate better relations among member states, and generally to contribute meaningfully to the development of Africa.[1133]

In order to practically realize these aims, ECOWAS' treaty allows it *inter alia* to abolish any obstacles to the free movement of peoples, services and capital between member states; harmonise agricultural policies and promote joint projects particularly in marketing, research and industrial ventures between member states; coordinate and implement joint development schemes in transport, communication, energy and other infrastructures; harmonize economic and industrial policies of member states while eliminating major disparities in the level of development between them; and, institute a fund for cooperation, compensation and development.[1134]

The fundamental principles which ECOWAS is supposed to adhere to in the pursuit of its objectives[1135] are, *inter alia*, to promote the following: equality and the interdependence of Member States; solidarity and collective self-reliance; inter-State co-operation, the harmonisation of policies and the integration of programmes; the maintenance of regional peace, stability and security through the good neighbourliness; the peaceful settlement of disputes among Member States, active Co-operation between neighbouring countries and a peaceful environment as a prerequisite for economic development; the recognition and protection of human and peoples' rights in accordance with the provisions of the African Charter on Human and Peoples' Rights; and equitable and just distribution of the costs and benefits of economic co-operation and integration.[1136]

Climate change issues are not addressed specifically in the ECOWAS treaty but both the objectives and principles reiterate the importance of promoting cooperation and

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1133 See Art 3 of the ECOWAS revised treaty 1993.

1134 See Bach DC "The politics of West African economic cooperation: CEAD and ECOWAS" 1983 *Journal of Modern African Studies* 21/4 605-623.

1135 See Art 3 of the ECOWAS revised treaty 1993

1136 See Art 4.

integration in order to raise the standard of living of the region's peoples and maintaining and enhancing economic stability.[1137] Sustainable development is also one of the key principles enunciated under the Treaty. Through these notions, one can deduce that the Treaty provides for climate change. The preamble envisages that the promotion of harmonious economic development, cooperation and the integration of ECOWAS states can be achieved only through the harmonisation of the laws and policies of member states. In this sense, the treaty could be a tool for the harmonisation of the environmental laws and policies of member states, through which climate change issues might be addressed.[1138] Also, the treaty creates an institutional structure through which environmental matters are addressed.[1139]

The institution responsible for environmental matters is the ECOWAS commission, through its directorate of the environment. Thus, climate change issues are addressed by the commission through the directorate of the environment.[1140]

5.3.3.2 The ECOWAS environmental policy 2008

The community does not have an environmental or climate change protocol. However, the Heads of State adopted the environmental policy in 2008 to address environmental issues in the sub-region.[1141] The policy is in line with the ECOWAS treaty on the harmonisation and coordination of national policies and the promotion of programmes, projects and activities.[1142]

1137 To see the objectives and principles, read Arts 3 and 4.

1138 This is because some West African countries have better climate change policies and laws. A good example is Ghana's policy framework on climate change.

1139 The treaty establishes the authority of heads of state and government, the council of ministers, the community parliament, the economic and social council, the community court of justice and the commission (formerly called an executive secretariat).

1140 Climate change is considered an environmental issue in the ECOWAS.

1141 See ECOWAS "Handbook on international trade" available at http://www.ecostat.org/en/TradeECOWAS/ECOWAS_TRADE.pdf (accessed on 12 February 2012).

1142 Art3(2)(a).

The objective of the environmental policy is to curb the depletion of natural resources, improve the quality of the environment, and preserve biological diversity in order to ensure a healthy environment, all while improving the balance of ecosystems and improving people's wellbeing.[1143]

The implementation of the environmental policy is done through the harmonisation and coordination of member states' policies and the promotion of programmes, projects and activities.[1144] Climate change is not specifically referred to in the environmental policy but it is indirectly referred to in the pillars of the policy. These pillars include: the strengthening of environmental governance (setting up a sub-regional mechanism) and the promotion of capacities to that effect; promoting the sustainable management of resources for the improvement of the sub-regional economy in an environmentally friendly manner; preventing environmental pollution and nuisance, controlling urban waste and the transboundary movement of hazardous wastes; and promoting information, education, and communication for a healthy environment.[1145]

Climate change is addressed under the strategic focus 1 on environmental governance and capacity building through the implementation of conventions in particular.[1146] However, ECOWAS has also come up with a climate change declaration containing a number of viable recommendations on how climate change can be addressed in the region.

1143 Art 3(2).

1144 See the ECOWAS environmental policy 2008 5 available at www.ecowas.int (accessed on 18 January 2012).

1145 See Boanuh J "West African regional climate change perspectives - institutional capacity and policy dialogue" a paper presented at the African mayoral climate change pre-COP17/CMP7 congress on 20 September 2011 Lagos Nigeria.

1146 See Djeri-alassani BK "Climate change concerns management and perspectives in ECOWAS commission" available at Http://news.ecowas.int/presseshow.php.nb (accessed on 14 February 2012).

5.3.3.3 The ECOWAS climate change declaration

ECOWAS held its regional conference on "protection challenges to climate change", which was organized by the United Nations in collaboration with the Government of Togo, on September 15th and 16th 2009 in Lome, Togo.[1147] In this conference ECOWAS made a call for the use of a human rights-based approach to address climate change challenges in the region.[1148] The call reflects the adoption of a broader social dimension to the climate change debate, considering the growing negative impacts of climate change on West Africa, which impacts were affecting the stability of the region, including the security and human rights of the citizens of the region.

The ECOWAS climate change declaration was entitled "Lome Declaration on Climate Change and Protection of Civilians in West Africa". In the declaration ECOWAS recommends the establishment of a special fund specifically to help address climate change-induced impacts on the affected part of the population.[1149]

Examples of the impacts to which specific reference is made in the declaration are conflicts arising from the depletion of natural resources and the infringement of displaced persons' rights, including the rights to shelter, food, clean water, health, education and their aspiration to dignity and a better future.[1150]

1147 Http://news.ecowas.int/presseshow.php.nb (accessed on 14 February 2012).

1148 Participants at the conference were the ECOWAS Commission, the United Nations Office in West Africa (UNOWA), the West Africa regional offices of the OHCHR and OCHA, representatives of the ECOWAS Member States and Mauritania, national human rights institutions in West Africa, the African Union, development partners, and government and non-governmental agencies.

1149 Paragraph 2 of the Lome declaration on protection challenges to climate change in West Africa 2009.

1150 For a detailed discussion on the depletion of natural resources and the infringement of displaced persons see Sand PH "Fortress conservation trumps?: The 'marine protected area' in the Chagos Archipelago" *The Journal of Environment and Development* 2012 21-36.

In addition, the declaration calls for measures to protect climate-affected persons, especially women, children and the young in order to preserve the full enjoyment of their fundamental human rights.[1151]

To ensure better protection of the West African population, the declaration further recommends that a regional platform should be established for data-base development and information exchange among ECOWAS Member States.[1152]

The declaration also advocates the drafting of new legal instruments aimed at ensuring the protection of climate-induced problems in the region.[1153] ECOWAS's call for new legal instruments is consistent with the members states' acknowledgement of the urgency to encourage the realization of the protection of the needs of those West African citizens who do not fall within the existing legal arrangements such as the International Refugee Law, the UN Guiding Principles on Internally displaced persons, and the African Union Convention on Refugees.[1154]

While recalling, amongst others, the principles and goals of the ECOWAS regional policy and plan of action on the reduction of the risk of disaster as well as the regional action programme to reduce vulnerability to climate change, the ECOWAS climate change declaration also recommends the strengthening of the capacity of national and regional stakeholders in the area of preparedness and response to humanitarian emergencies.[1155] In the conference which culminated into the ECOWAS declaration it was noted that the strengthening of the capacity of national and regional stakeholders in the area of climate change was crucial to the ECOWAS Vision 2020, which aims at moving from an ECOWAS of States to an ECOWAS of the people.[1156]

1151 See paragraph 20 sub-paragraph 4 of the Lome declaration 2009.
1152 See paragraph 20 sub-paragraph 6.
1153 See paragraph 20 sub-paragraph 5.
1154 Persons displaced internally due to the impacts of climate change are not recognized as refugees under the current international legal regime protecting refugees.
1155 See paragraph 20 sub-paragraph 3 of the Lome declaration 2009.
1156 See paragraph 17.

Furthermore, the ECOWAS climate change declaration calls on the international community to provide the supplementary resources needed to mobilize ad-hoc support for the on-going initiatives of ECOWAS Member States in their adaptation programmes, including those related to the protection and respect for human rights, risk reduction, disaster preparedness and response capacity.[1157]

Similarly, the declaration urges ECOWAS Member States to promote and establish adaptation mechanisms which take into consideration regional cooperation, national expertise and knowledge to formulate such multi-sectoral responses as are needed to address the global challenge effectively at the regional level.[1158]

In order for ECOWAS to adequately respond to the impacts of climate change, it must establish or strengthen (the existing) institutions which deal with the coordination and harmonisation of environmental policies and laws. The harmonisation and coordination of the policies and laws of ECOWAS' member states must be carried out properly and adequately in order to be able to implement the ECOWAS treaty, the environmental policy and climate change declaration. Both the environmental policy and the climate change declaration require the harmonisation and coordination of member states' policies and laws as the main way of responding to climate change in the region. The ECOWAS treaty provides that the promotion of harmonious economic development, and the co-operation and integration of ECOWAS member states can be achieved only through a regime of harmonised laws adopted and applied as supranational laws of the ECOWAS member states.[1159]

1157 See paragraph 18.

1158 See paragraph 19 of the Lome declaration 2009.

1159 See the preamble to the ECOWAS revised treaty and Arts 3 (h), 54 and 55 available at www.ecowas.int.org (accessed on 25 February 2012).

5.4 Concluding remarks

This chapter examined the AU's and REC's normative framework in order to assess whether or not the framework is conducive to addressing environmental challenges, especially the impacts of climate change. The chapter shows that the various regional legal interventions for the protection of the environment in Africa recognise the linkage between climate change and socio-economic development in the context of sustainable development.

Although the AU's response to climate change is a recent development, the AU stands a good chance of facilitating feasible ways of addressing climate change through its regional normative framework. The objectives set out in the Constitutive Act could provide a way forward, particularly regarding the promotion of sustainable development at the economic, social and cultural levels, as well as promoting and defending African common positions on climate change.[1160]

However, the AU does not have an organ that deals solely with climate change issues, save for the Committee of African Heads of State and Government on Climate Change (CAHOSCC) and the African Ministerial Conference on the Environment (AMCEN). These are not official organs of the AU and their mandates are limited and subject to the directives of the AU Assembly. Thus, although there are a number of climate change-related normative frameworks in Africa, much needs to be done when it comes to implementation because of the lack of strong institutional structures. The AU should facilitate the establishment of a climate change commission and a regional climate change protocol. Both the protocol and the commission would assist in developing and implementing a comprehensive framework of African climate change programmes and in developing and realizing a feasible common position on climate change.

1160 Art 4.

It is also noted that most African states lack political will regarding binding environmental treaties. A good example is the non-ratification by most African States of the Revised Nature Convention (the Maputo convention) that, as we have seen, constitutes a roadmap for the management of Africa's natural resources. Such non-ratification has been a stumbling block against the coming into force of the convention. Even the conventions which are in force have not been adequately implemented as most African states have evidenced a lack of the political will to enforce the provisions of these conventions in their jurisdictions.

The fundamental role of Africa's RECs in providing the legal framework for responding to climate change has been acknowledged. It is concluded that the framework does not adequately address climate change as one of the major environmental challenges today. The RECs are expected to be the key role players of the continent's integration process[1161] and have specific responsibilities including conceiving of and monitoring the implementation of integration–related policies and programmes, and mobilizing the necessary resources to support such policies and programmes. Hence their role in responding to climate change is vital.[1162] This is because regional integration can facilitate cooperation among sub-regional member states in addressing issues of common concern.

1161 See Mulat (1998) *Journal of World Trade* 130 and Gibb (1998) *The Journal of Modern African Studies* 290.

1162 See Art 6 of the Abuja Treaty.

CHAPTER 6: CLIMATE CHANGE AND INTERNATIONAL HUMAN RIGHTS LAW IN AFRICA

Contents of this chapter

6.1	Introduction	240
6.2	Human rights and climate change	242
6.2.1	The UNHRC resolutions on human rights and climate change	244
6.2.2	Critical appraisal of the linkage human rights and climate change	251
6.3	The duty to cooperate and the extraterritorial application of human rights law	258
6.3.1	The duty of states to cooperate	259
6.3.2	Extraterritorial application of human rights law	262
6.4	African human rights law and climate change	269
6.4.1	The African human rights commission's resolution 153	271
6.3.1.1	The implications of climate change for the enjoyment of human rights in Africa	273
6.4.1.1.1	The right to life	274
6.4.1.1.2	The right to food	275
6.4.1.1.3	The right to water	280
6.4.1.1.4	The right to health	283
6.4.2	The Banjul Charter of 1981	285
6.4.2.1	The African Human Rights Commission's interpretation	288
6.5	Concluding remarks	298

6.1 Introduction

States have traditionally approached the phenomenon of climate change and global warning as an ecological problem and in recent years, as an economic one.[1163] To date, the social and human rights dimensions of climate change and global warming have not received adequate attention.[1164]

However, recently the UN Human Rights Council Resolution 7/23[1165] affirmed the link in the study that was submitted to the tenth session of the UNHRC in 2009. Accordingly, resolution 10/4 of the UNHRC ("human rights and climate change") takes cognisance of the fact that climate change-related impacts have implications for the enjoyment of human rights. Moreover, the Cancun Agreements adopted at the sixteenth Conference of the Parties (COP) of the United Nations Framework Convention on Climate Change[1166] and the African Commission on Human and Peoples' Rights Resolution 153 (XLV) 09 (in which the Commission expressed concern about the consequences of climate change on the enjoyment of human rights in Africa)[1167] took cognisance of the link. Thus, there is a clear link between human rights and climate change which warrants the assumption of a human rights-based approach to climate change.

Scholars have argued that the application of a human rights-based approach should be guided by human rights obligations and principles.[1168] However, the approach calls for

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1163 Rodriguez-Rivera LE "Is human right to environment recognized under international law? It depends on the source" 2001 *Colorado Journal of International Law and Policy* 12.

1164 Aminzadeh S "A moral imperative: the human rights implications of climate change" 2007 30 *Hastings International and Comparative Law Journal* 231.

1165 Human rights council resolution 7/23 adopted on 28 March 2008.

1166 Decision 1/CP.16 the Cancun Agreements: Outcome of the work of the Ad Hoc Working Group on Long-term Cooperative Action under the Convention (UN Doc.FCCC/CP/2010/7/Add. 1, 15 March 2011).

1167 See African commission on human and people's rights AfCHPR/Resl153(XLV)09 adopted at the 46th ordinary session of the AfCHPR 11-25 November 2009 Banjul The Gambia.

1168 Cameron E and Limon M "Restoring the climate by realising rights: The role of the international human rights system" 2012 21(3) *Review of European Community and International Environmental Law* 204 and Boyle A "Human rights and the environment: Where next? 2012 23/3 *The European Journal of International Law* 637.

the fulfillment of the duty of states to cooperate under International human rights law. It also requires the extraterritorial application of human rights law due to the transboundary nature of climate change.

The approach presents a virgin avenue for AU institutions such as the Human Rights Commission and the African Court to apply, in order to ensure their compliance. On the basis of AfCHPR resolution 153, the AU and/or Africa's RECs could extend human rights jurisprudence to climate change and require member states to implement human rights that are likely to be violated due to climate change consequences.[1169]

It may seem obvious that climate change will violate many human rights, including the rights to life, health, property, water, housing and food to mention but a few.[1170] Climate change is not just an environmental issue or a scientific thesis; it is a human rights issue.[1171] Climate change is already adversely affecting individuals around the planet, due to the alterations that are occurring in ecosystems and the increased incidence of natural disasters.[1172] These impacts have been observed to be intensifying in frequency and magnitude. The questions are, what duties, if any, does human rights law place on states to address climate change, and how can the adoption of an international human rights framework assist in addressing climate change?
The lens of human rights law is an appropriate tool with which to view the possibility of addressing climate change, because human rights law forms the source for many of a state's responsibilities.[1173] It has become clear that climate change will have devastating

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1169 The duty to cooperate is stated in Article 2(1) of the International Covenant on Economic, Social and Cultural Rights (ICESCR) 1966 and Article 55 of the United Nations Charter.

1170 Knox JH "Linking human rights and climate change at the United Nations" 2009 *Harvard Environmental Law review* 447

1171 For a detailed discussion of how climate change affects human security see Scholtz W "The promotion of regional environmental security and Africa's common position on climate change" 2010 *African Human Rights Law Journal* 1-25.

1172 Cameron E "The human dimension of global climate change" 2009 *Hastings West-Northwest Journal of Environmental law and Policy* 15.

1173 Beyerlin U and Marauhn T *International environmental law* (Hart Publishing UK2011) 395.

consequences upon the enjoyment of human rights.[1174] The discourse of human rights provides an important framework within which to think through and assess the risks associated with climate change and the policy structures and mechanisms required to provide effective relief to those that are affected. Attending to human rights also means appreciating and recognizing that in taking steps to grow our economies, we must not do so in a manner that is detrimental to the most vulnerable, as is currently the case.

This chapter discusses the link between human rights and climate change on the basis of the UNHRC resolutions 7/23 and 10/4 and the AfCHPR resolution 153, which is followed by a discussion of a few examples of human rights that are most likely to be implicated in the effects of climate change. Furthermore, the chapter highlights the importance of the duty of states to cooperate, as well as the extraterritorial application of human rights in Africa. The chapter ends with concluding remarks.

6.2 Human rights and climate change

Climate change is currently not only an environmental issue but also a human rights issue for millions of people and communities all over the world experiencing rising sea levels, severe floods and storms, health impacts, and a number of other adverse impacts associated with climate change.[1175]

In examining the linkages between human rights and climate change, it is important to briefly look at the different types of conceptual questions and considerations in play, since both areas (climate change and human rights) have evolved separately over time with different assumptions and premises, approaches, and methodologies.[1176] Therefore, conceptual and analytic questions persist about how to link the two issues in

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1174 Robinson M foreword to a report "Climate change and human rights: A rough guide" (2008) available at: http://www.balticuniv.uu.se/index.php/download/doc_view/109-climate-change-and-human-rights [accessed 6 January 2012].

1175 See OHCHR "Report on the human rights and climate change" (2009) 1-3.

1176 Siohban M "Climate change and human rights: An introduction to legal issues" 2010 *Harvard Environmental Law Review* 431.

a coherent manner. At this level, the challenge remains how to link the pervasive phenomenon of climate change, with its aggregated causes and dispersed effects, to the legal and normative constructs of correlative right and duty under the international human rights framework.[1177] How does one connect the physical manifestations of climate change with peoples' entitlements to certain rights and freedoms and the responsibilities of states, including to persons residing outside their jurisdictions in the light of the resistance of many states to the very notion of extra-territorial obligation?[1178] Connected with the contested boundaries of human rights duties are the complex questions of causation in relation to climate change, which compound the difficulty of questions related to attribution and responsibility. For instance, Rose Mwebaza[1179] argues that the link between climate change and human rights in Africa is not simple, which complexity raises further difficult challenges because the impacts of climate change on human rights are causal as well as reinforcing of other already existing stressors for Africa such as complex governance systems, endemic poverty, and limited financial capacity and technical resources.

Other conceptual issues include the need to specify the sources of the rights and duties under consideration. Invoking the notion of human rights entails both rights and duties, and in each case, for human rights to have meaning, one must identify a right-holder and a duty-bearer so as to permit an actionable claim. Ideally, each should be identified in corresponding legal terms according to one of the traditional sources of public international law as specified under article 38 of the Statute of the International Court of Justice,[1180] or at least some relevant provision of domestic law.

1177 For discussion on correlativity of rights and duties see Eide A Economic social and cultural rights as human rights in Eide A *et al* eds *Economic social and cultural rights* (2001) 9 and Mayo B "What Are Human Rights?" *in Raphael D (ed) Political theory and the rights of man* (1967) 68-72.

1178 Skogly S "*Beyond national borders: states' human rights obligations in international cooperation*" (2006) 57 – 72.

1179 See Mwebaza R "Climate change and the international human rights framework in Africa" in Mwebaza R & Kotze LJ (eds) *Environmental governance and climate change in Africa* (Institute for Security Studies 2010) 227-261.

1180 See Art. 38 of the Statute of the International Court of Justice of 1945.

As described in the Office of the United Nations High Commissioner for Human Rights (OHCHR) report, a human rights-based approach to climate change is "a conceptual framework for the process of human development that is normatively based on international human rights standards and operationally directed to promoting and protecting human rights."[1181]

The UN Human Rights Council (UNHRC) has adopted a resolution on human rights and climate change explicitly recognising climate change implications for the enjoyment of human rights.[1182] Further, in 2009 the UNHRC adopted another resolution 10/4 requiring the Office of the High Commissioner on Human Rights (OHCHR) to examine the relationship between climate change and human rights.[1183] The OHCHR wrote a report that drew three important conclusions.[1184] First, climate change threatens the enjoyment of human rights. Second, climate change does not, however, necessarily violate human rights. Third, human rights law places duties on states concerning climate change issues including an obligation of international cooperation.[1185] This part explores the linkage between human rights and climate change based on the UNHRC resolutions and the OHCHR report on human rights and climate change.

6.2.1 The UNHRC resolutions on human rights and climate change

Climate change and human rights are governed by international regimes that have evolved separately, with different premises underlying the legal frameworks of multilateral environmental agreements (like the UNFCCC)[1186] and human rights treaties

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1181 OHCHR (2009) 15.

1182 See UN Human Rights Council (UNHRC) Res. 7/23 U.N. Doc. A/HRC/7/78 (28 March 2008).

1183 See UNHRC Res.10/4 U.N,Doc.A/HRC/10/L.11 (12 May 2009).

1184 See the OHCHR report on the relationship between climate change and human rights 2009. U.N.Doc.A/HRC/10/61 (hereinafter referred to as OHCHR report). See also Knox (2009) *Harvard Environmental Law Review* 447-498.

1185 OHCHR (2009) 16-19.

1186 UNFCCC opened for signature on May 9, 1992. TREATY Doc. No. 102-38, 1771 U.N.T.S. 107 as amended by Kyoto Protocol to the United Nations Framework Convention on Climate Change, opened for signature on 16 March 1998 2303 U.N.T.S. 148 and entered into force Feb. 16, 2005.

(such as the International Covenant on Economic, Social and Cultural Rights ("ICESCR")).[1187] For instance, one may contrast the relatively clear "vertical" application of human rights treaty provisions between a State Party and its citizens or persons within its jurisdiction with the more "horizontal" operation of environmental agreements like the UNFCCC governing state–to-state relations and burden sharing between countries in relation to emissions.[1188] In each case, the application of rights and duties under the various instruments reflects different iterations of state-centricity. The two regimes are compatible in terms of their focus on treaty obligations, which is particularly relevant for States Parties. Moreover, there are complementarities identifiable in principles, which can be identified in both the UNFCCC and the ICESCR, such as the duty of cooperation,[1189] "do no harm,"[1190] or equity.[1191]

A starting point for conceptualizing the connection between climate change and human rights through the international human rights framework is to focus on a number of rights that will be impacted adversely by climate change. The UN Human Rights Council resolution and the OHCHR study emphasize how climate change will negatively impact (and already is negatively impacting) the enjoyment of specific human rights in many countries around the world, with the starkest examples emerging in Small Island and low-lying states and Africa (which is at risk of increased desertification and drought).[1192] These include the right to life, food, water, health, housing, and self-determination. They may also include rights under threat because of climate change-related conflict or displacement. The impacts will also affect the rights of certain vulnerable groups

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1187 ICESCR opened for signature on 16 December l966 993 U.N.T.S. 3 and entered into force *on 3* January 1976.

1188 See Article 3(1) of the UNFCCC 1992.

1189 See Article 3(5) of UNFCCC 1992 and Article 2(l) of ICESCR 1966.

1190 This principle was first identified in the *Trail Smelter Case* (*USA vs. Canada*) 3 R. International Arbitral Awards 1905 (Trail Smelter Arb. Trib. 1941) but more recently argued to inhere beyond the realm of environmental harm to human rights-related harm.

1191 See Article 3(1) of the UNFCCC of 1992 and *Article 2(2)* of ICESCR 1966.

1192 Wewerinke M and Doebbler CFJ "Exploring the legal basis of a human rights approach to climate change" 2010 10 Chinese Journal of International Law 1-25.

disproportionately, with factors such as poverty, gender, age, indigenous or minority status, and disability reinforcing the disparate impacts.[1193]

On March 28, 2008, the United Nations Human Rights Council (UNHRC) adopted a resolution[1194] on human rights and climate change in which for the first time the United Nations explicitly recognized that climate change has implications for the full enjoyment of human rights.

The international community moved the UNHRC resolutions and studies through a number of ways. The first pressure came from the *Inuit*[1195]*case*. Climate change and human rights were explicitly linked in December 2005, when an alliance of *Inuit* from Canada and the United States, led by Sheila Watt-Cloutier, filed a petition with the Inter–American Commission on Human Rights.[1196] The petition alleged that the human rights of the plaintiffs had been infringed and were being further violated due in large part to the failure of the United Stated to curb its greenhouse gas emissions. The petition stipulated, "the effects of global warming constitute violations of Inuit human rights for which the United States is responsible."[1197] Although the petition was rejected without prejudice in November 2006, the commission subsequently invited, in February 2007, the Inuit Alliance together with representatives of the Center for International

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1193 OHCHR report (2009) 65-68.

1194 See UN Human Rights Council (UNHRC) Res. 7/23, U.N. Doc. A/HRC/7/78 (March 28, 2008)

1195 The word "*Inuit*" means "the people" in the native language of *Inuktitut*. This is a linguistic and cultural group that descended from the Thule people whose tradition range spans four countries-*Chukotka* in the federation of Russia, northern and western Alaska in the United States of America, northern Canada, and Greenland.

1196 See Wagner M and Goldberg DM "An Inuit petition to the inter-American commission on human rights for dangerous impact of climate change (2004) A paper presented at 10th conference of parties to the UNFCCC in Buenos Aires, Argentina available at www.ciel.org/Publications/COP10_Handout_EJCIEL.pdf (accessed on 10 March 2012).

1197 See the petition to the inter-American commission on human rights seeking relief from violations resulting from global warming caused by acts and omissions of the United States December 7, 2005 available at Http://www.inuitcircumpolar.com/files/uploads/icc-files/finalpetitionicc.pdf (accessed on 10 march 2012)

Environmental Law ("CIEL") and Earth Justice to provide testimony on the link between global warming and human rights.[1198]

The Inuit case introduced the idea that rather than being a global and intangible phenomenon belonging squarely to the natural sciences, global climate change is in fact a very human process with demonstrable human cause and effect. It could thus, like any other aspect of human interaction, be placed within a human rights framework of responsibility, accountability and justice. Climate change has already begun to affect the fulfillment of human rights, and our shared human rights framework entitles and empowers developing countries and impoverished communities to claim protection of these rights.

Thus, the link is explicitly recognized in the OHCHR report, a version of the analytical study requested under resolution 7/23.[1199] The report, which was based on written and oral submissions by over thirty states and thirty-five international organizations, national human rights institutions, NGOs, and academic bodies, marks a first attempt by the United Nations human rights machinery to undertake a comprehensive assessment of the complex and multifaceted inter–linkages between climate change, environmental degradation, and human rights.[1200] Although the Report is conservative in its analysis and conclusions[1201] it is nevertheless highly significant in that it marks a definitive break with arguments about whether there is indeed a relationship between climate change and human rights and thus points toward a new debate on the implications of and necessary responses to that relationship.[1202]

1198 The letter inviting them to provide testimony before the inter-American commission on human rights is available at http://www.ciel.org/publications/IACHR_Response_1Feb07.pdf (accessed on 10 March 2012).

1199 See the office of the UN High Commissioner for human rights (OHCHR) report on the relationship between human rights and climate change UN Doc. A/HRC/10/61 (15 January 2009).

1200 Knox (2009) *Harvard Environmental Law Review* 478.

1201 For example, one of the report's conclusions is that climate change does not necessarily violate human rights.

1202 OHCHR report (2009) 92-99.

The Report outlines "how the empirical reality and projections of the adverse effects of climate change (i.e., the baseline provided by IPCC AR4) on the effective enjoyment of human rights relate to obligations assumed by states under the international human rights treaties." It asserts that global warming "will potentially have implications for the full range of human rights" but that certain rights are most directly implicated by climate change-related impacts. These rights include the right to life, the right to adequate food, the right to water, the right to health, the right to adequate housing, and the right to self - determination. Moreover, while these implications affect individuals and communities around the world, certain countries - including small island states, countries with low-lying coastal deltas, and countries liable to floods, drought, and desertification — are particularly vulnerable.[1203] These arguments are strongly supported by certain national submissions (e.g., Maldives, Mali, and the Marshall Islands), which catalogue and explore each of the affected rights in considerable detail and place these impacts in the context of geographical vulnerability.

It is also argued in the report that "vulnerability due to geography is often compounded by a low capacity to adapt," meaning the poor are especially affected.[1204] Moreover, climate change serves to exacerbate existing vulnerabilities, meaning that the rights of groups such as children, women, minorities, the elderly, and persons with disabilities are disproportionately threatened.[1205] Both points in turn raise questions about equality and non-discrimination.

The OHCHR report based its findings on the IPCC 4th assessment report, making it clear that climate change has serious and widespread implications for the full enjoyment of human rights. As the International Council on Human Rights Policy ("ICHRP") notes

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1203 See OHCHR (2009) report 17-98.
1204 See OHCHR (2009) 93.
1205 See OHCHR (2009) 94.

in its book, "As a matter of simple fact, climate change is already undermining the realisation of a broad range of internationally protected human rights."[1206]

In 2009, the UN Human Rights Council adopted resolution 10/4 on human rights and climate change, drawing out some key conclusions from the OHCHR report and outlining certain next steps.[1207] The resolution 10/4 notes that "climate change-related effects have a range of implications, both direct and indirect for the effective enjoyment of human rights" and goes on to list those rights that are particularly implicated. It further states that the effects of climate change will fall hardest on the rights of those people who are already in vulnerable situations (Africa is a good example) "owing to factors such as geography, poverty, gender, age, indigenous or minority status and disability." Both resolution 7/23, which led to the writing of the OHCHR report, and resolution 10/4, which outlines the next steps that derive from the OHCHR report, point to the linkage between human rights and climate change.

Building on the UN Human Rights Council resolutions 7/23 and 10/4, the Council established the mandate for the Independent Expert on Human Rights and the Environment.[1208] The UNHRC requested the Independent expert[1209] *inter alia* to study human rights obligations relating to the enjoyment of a safe, clean, healthy and sustainable environment and to identify, promote, and exchange views on best practices relating to the use of human rights obligations and commitments to inform, support and strengthen environmental policy making on the area of environmental protection.[1210] The work of the Independent Expert is important because he will prepare

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1206 See ICHRP "Climate change and human rights: A rough guide" 2008 *International council on human rights policy* 1-101.

1207 See UNHRC (2009) Report UN Doc. A/HRC/10/29 (20 April 2009).

1208 See UNHRC resolution 19/10 (March 2012).

1209 Mr. John Knox was appointed as an independent expert on human rights and the environment (for 3 years) in August 2012.

1210 UNHRC Res.19/10 (March 2012).

feasible grounds for the application of a human rights-based approach to climate change.[1211]

If consistently applied, the approach may form a strong legal basis, building on legal obligations owed by states to their citizens and to the international community, since every state is bound by human rights obligations through treaties, agreements, customary international law and domestic law.[1212] A human rights-based approach also builds on universal values including human dignity, equality and justice. It can help to create a picture of potential consequences, especially impacts on most vulnerable states and special groups such as women, children, disabled persons and indigenous people.[1213]

The Cancun Agreements are hailed for incorporating strong and explicit language indicating the recognition of the human rights-based approach to climate change.[1214] The preamble to the decision notes "UNHRC resolution 10/4 on human rights and climate change ... recognises that the adverse effects of climate change have a number of direct and indirect implications for effective enjoyment of human rights".[1215] The Cancun Agreements further affirm the central importance of human rights in the context of climate change by providing that "parties should, in all climate change-related actions, fully respect human rights."[1216] The recognition of this approach in the International climate change regime is very important because it implies that states must be guided by human rights considerations on all important pillars of dealing with

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1211 Cameron and Limon (2012) *Review of European Community and International Environmental Law* 219.

1212 Johl A and Lador Y "A human rights-based approach to climate finance" 2012 *International Policy Analysis* 1-20.

1213 Johl and Lador (2012) *International Policy Analysis* 4.

1214 Decision 1/CP.16 (UN Doc.FCCC/CP/2010/7/Add.1 15 March 2011) and Cameron E and Limon M "Restoring the climate by realising rights: The role of the international human rights system" 2012 21/3 *Review of European Community and International Environmental Law* 204.

1215 Paragraph 2 of Decision 1/CP.16.

1216 Paragraph 3 of Decision 1/CP.16.

climate change, such as mitigation, adaptation, finance, and technology development and transfer.[1217]

The UNHRC resolutions on human rights and climate change discussed above are therefore important in the recognition of the human rights-based approach to climate change, but need a more systematic application. Currently, no human rights body has applied the approach in a coordinated manner. [1218] The approach could be helpful for states that are poor and vulnerable to climate change consequences, particularly in Africa. A human rights-based approach to climate change may provide a way for vulnerable, poor countries to respond to the social, economic and political threats that they are facing, and a way for them to deal with their frustration at the pace of the UNFCCC negotiations.[1219]

6.2.2 Critical appraisal of the linkage human rights and climate change

The linkage between human rights and climate change has attracted several criticisms including one from a respected scholar, Philip Alston, who argues that the discourse of human rights and its underlying value system must not be conjured up in connection with broader social issues such as climate.[1220] In his view, using rights language to describe such issues confuses and devalues the existing human rights framework. However, this view overlooks the obvious fact that climate change brings a new threat to human dignity, which is central to all rights. Hence the human rights-approach to climate change.

1217 Cameron and Limon (2012) *Review of European Community and International Environmental Law* 204.

1218 Wewerinke and Doebbler (2010) *Chinese Journal of International Law* 2.

1219 Cameron and Limon (2012) *Review of European Community and International Environmental Law* 206.

1220 Alston P "Conjuring up new human rights: A Proposal for quality control" (1984) 78 *American Journal of International Law* 607.

Second, although, UNHRC resolutions 7/23 and 10/4 recognise the linkage between human rights and climate change, the OHCHR report concludes that climate change does not necessarily violate human rights.[1221] A violation of human rights is commonly understood to imply a breach of a legal duty under human rights law.[1222] Although the OHCHR report explains that whether or not climate change violates human rights law, human rights law places duties on the states that are relevant to climate change,[1223] the Report does not adequately explain the content of the states' duties concerning climate change. This is very controversial because developed countries have long resisted the proposition that they have human rights obligations to those not within their territory or direct control.[1224] Thus, it is important to clarify the human rights obligations of States in the context of climate change.

Other critiques can be traced from the USA submission to the OHCHR study.[1225] The USA identifies three main theoretical problems that would make any movement "towards a human rights - based approach to climate protection" both impractical and unwise.[1226]

First, the USA contends that "climate change is a highly complex environmental issue, characterized by a long chain of steps between the initial human activities that produce greenhouse gas emissions and the eventual physical impacts that may result from those emissions. Furthermore, many uncertainties exist regarding the magnitude of current and future climate change, including distinguishing between those impacts that

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1221 OHCHR (2009) report 92-99.

1222 Atapattu S "Global climate change: Can human rights (and human beings) survive this onslaught?" (2010) 20 *Colorado Journal of International Environmental Law and policy* 35.

1223 OHCHR (2009) 96.

1224 Knox JH "Linking human rights and climate change at the United Nations" (2009) 3 *Harvard Environmental Law Review* 477.

1225 See US OHCHR Observations by the United States of America on the relationship between climate change and human rights 12-14 available at http://www..ohchr.org/English/issues/climatechange/docs/submissions/USA.pdf.

1226 Limon M "Human rights and climate change: Constructing a case for political action" (2009) 33 *Harvard Environmental Law Review* 439.

are part of natural climate variability and those that are influenced by anthropogenic climate change."[1227]

Second, they argue that "climate change is a global phenomenon. A worldwide and diffused set of actors - public and private, wealthy and poor - collectively determine the world's anthropogenic greenhouse emission levels."[1228]

Third, they submit that climate change is a long-term issue and emissions of carbon dioxide remain in the atmosphere for an average of about 100 years. Thus, the impacts of climate change today were caused not by recent emissions but by the accumulation of greenhouse gases over long periods of time by a diffuse set of actors, most of whom would have been unaware of any potentially adverse future impact.[1229]

According to the USA, "a complex global environmental problem with these characteristics does not lend itself to human rights-based solutions."[1230] This argument is partly supported by the OHCHR report, which concedes the point that climate change does not necessarily violate human rights.[1231] The Report stipulates that "the physical impacts of global warming cannot easily be classified as human rights violations, not least because climate change-related harms often cannot clearly be attributed to acts or omissions of specific states."[1232]

While these arguments have some merit, they are not yet conclusive and, more importantly, they reflect a one-dimensional view of the potential conceptual links between climate change and human rights.[1233] They are based on the premise that a central purpose of human rights law is to provide remedies for the victims of specific

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1227 See USA OHCHR report submission 11-26.
1228 See USA OHCHR report submission 20.
1229 See USA OHCHR report submission 21.
1230 See USA OHCHR report submission 23.
1231 OHCHR (2009) report 96.
1232 See OHCHR report 26.
1233 See Cameron E "The human dimension of global climate change" 2009 15 *Journal of Environmental Law and Policy* 1.

rights violations. This framework requires identifiable violations and identifiable harms attributable to the violations.[1234]

It is true of course that at present it is very difficult to argue that climate change represents a violation of human rights but it is not impossible. For instance, the International Council on Human Rights Policy (ICHRP) argues that "specific actors are responsible for climate change. According to the ICHRP these actors are those who over-use carbon fuels in highly varying degrees".[1235] The difficult part is how this group can be broken down into definite and identifiable parties to whom responsibility can be attributed in a specific and discrete manner.

Moreover, even if responsibility and harm could be established, existing human rights law is primarily concerned with how a government treats its own citizens and others living within its territory and under its jurisdiction. A human rights approach to climate change therefore provides no useful kind of accountability or redress framework for situations arising from phenomena such as climate change, if responsibility and harm are largely trans-national.[1236] The extraterritorial application of human rights law[1237] could have been an alternative but its application to trans-boundary pollution and global climate change remains unclear.[1238] The extra-territorial application of human rights law could be a good avenue but it is difficult to ascertain to what extent a state must respect the human rights of persons of other countries, in the context of trans-boundary climate change effects, and in in human rights terms.[1239]

However, identifying and providing remedies for specific human rights violations is not the only potential role of human rights law. As Kyung-Wha Kang has noted, "human

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1234 See USA OHCHR report submission 23-24.

1235 ICHRP (2008) *International council on human rights policy* 66.

1236 Limon (2008) 33 *Harvard Environmental Law Review* 439.

1237 The concept implies that states should respect the human rights of persons in other countries. See Boyle (2012) *European Journal of International Law* 635.

1238 Boyle (2012) *European Journal of International Law* 1 and 635.

1239 See Meron T "Extraterritoriality of human rights treaties" 1995 89 *American Journal of International Law* 78 and Heijer M *Europe and extraterritorial asylum* (Hart Oxford 2012).

rights supply not only legal imperatives, but also a set of internationally agreed values around which common action can be negotiated and motivated."[1240] Thus, human rights should be seen not only as a way of seeking redress for what has happened, but as a forward-looking means of encouraging the evolution of and providing a qualitative contribution to robust, effective and sustainable policy responses at both the national and international level, across mitigation and adaptation.[1241] It is in this progressive sense that the contemporary value of linking human rights and climate change is to be found, and it is in this progressive sense that the various benefits of a human rights approach, as enumerated earlier, come to the fore.[1242] In short, in the limited sense understood by the USA, there are clear theoretical difficulties in applying human rights-based solutions to climate change. However, seen in the broader sense as a set of values and norms from which to draw inspiration, a human rights-based approach could potentially add much value to the existing politico-scientific climate change discourse.

However, apart from theoretical difficulties, there are potential practical difficulties that may arise from linking human rights and climate change. A first important practical constraint that has plagued efforts to draw links between climate change and human rights from the beginning is what the ICHRP has termed "path–dependency,"[1243] but which might also be called "path exclusivity." The climate change response process, led by the IPCC and the UNFCCC, is dominated in general by experts in the physical sciences. As the ICHRP has noted: "[t]he study of climate change began among meteorologists, became firmly entrenched in the physical sciences, and has only gradually - if inevitably - reached into the social sciences."[1244] Consequently there is an almost complete lack of understanding of human rights systems and their potential value within the IPCC and, more importantly, within the UNFCCC process (both among

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1240 ICHRP "Climate change and human rights: A rough guide" (2008) available at http://www.books.google.com/books (Accessed on 18 April 2012).

1241 OHCHR report 77.

1242 ICHRP "Climate change and human rights: A rough guide" 3.

1243 ICHRP "Climate change and human rights: A rough guide" 3.

1244 ICHRP "Climate change and human rights: A rough guide" 3.

states and in the Secretariat).[1245] Indeed, this lack of understanding sometimes manifests itself as outright hostility. For its part, the human rights community, despite obvious overlap, has until recently been equally reluctant to address climate change. This is both because the issue is seen by many states as one that belongs squarely in the natural sciences (i.e., it is the responsibility of environment ministries rather than foreign ministries), and because human rights practitioners "are unlikely to take up issues framed as hypothetical or scenario—based." As well as making useful linkages between the two disciplines difficult, "path dependency" also leads to the oft-repeated argument by states that human rights must be dealt with by the Human Rights Council and climate change by the UNFCCC. As the United States notes in its submission, "the United States takes the view that a 'human rights approach' to addressing climate change is unlikely to be effective, and that climate change can be more appropriately addressed through traditional systems of international cooperation and international mechanisms for addressing this problem, including through the UNFCCC process."[1246] Similarly, Canada noted in its national submission that it "joined consensus on resolution 7/23, notwithstanding initial concerns that the Council is not the most appropriate forum for a discussion on climate change issues. Canada believes the UNFCCC is the most appropriate forum in which to address issues related to climate change."[1247] This, of course, ignores the fact that both climate change and human rights are horizontal issues and thus will necessarily appear in the context of the work of a range of different U.N. bodies.[1248]

1245 ICHRP has noted that the words "human rights" are almost totally absent from core UNFCCC and IPCC documentation. This means that the main stream of climate change literature ignores human rights completely.

1246 See USA OHCHR report submission 4.

1247 See Canada report submission to OHCHR study concerning a request in human rights council resolution 7/23 for a detailed analytical study of the relationship between climate change and human rights (2008) (hereinafter referred to as Canada OHCHR report submission) 1 available at http://www2.ohchr.org/english/issues/climatechange/docs/canada.pdf.

1248 The impact of climate change has been actively addressed by a range of different UN bodies such as the United Nations Development Programme (UNDP), the World Health Organisation (WHO), and the Office of the UN High Commissioner for Refugees (UNHCR) to mention but a few examples.

Another problem relates to a concern on the part of many states that the Human Rights Council and related bodies should not be seen to be replacing or duplicating the UNFCCC process or challenging its primacy on climate change matters. This led many members of the Council to effectively make their support for Resolution 7/23 dependent on the tacit understanding that the Council's eventual output on this issue (i.e., the OHCHR Report and a summary of the Council's views) would be dovetailed with or "fed into" the Bali Process.[1249] The Council must not, it was urged, retain climate change as a permanent item on the agenda or set up mechanisms parallel to the UNFCCC. A third, more tactical concern raised informally by some states is that including human rights in negotiations on the post-Kyoto climate change framework would perversely make delegations less likely to sign up to stringent emission reduction targets for fear that, if they were to fail to reach those targets, they might leave themselves open to litigation.[1250]

A final important practical constraint relates to a lack of political trust between developed and developing countries. In a broad sense, this lack of trust manifests itself, on the part of industrialized countries, in a fear that individuals or even countries that have suffered or will suffer harm could use any officially recognised links between human rights and climate change as a political or legal weapon against them.[1251] Some developed countries also have concerns that developing countries may be using the issue of climate change as a "back door" to reintroduce the related and controversial issues of the extraterritorial application of human rights and the establishment of a new universal "right to a safe and secure environment."[1252] For developing countries, mistrust manifests itself as a suspicion that the West wants to use human rights as a

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1249 Limon (2009) 33 *Harvard Environmental Law Review* 439.

1250 Knox (2009) 33 *Harvard Environmental Law Review* 477.

1251 See US OHCHR report submission 26.

1252 See the submission of the UK to the OHCHR report: "Assessment at national level of the impact of climate change (experienced or anticipated) on human lives and on populations most affected and vulnerable" (2008) 20 (hereinafter referred to as the UK OHCHR report submission) available at Http://www2.ohchr.org/English/issues/climatechange/docs/submissios/uk.pdf. (Accessed on 12 April 2012) (accessed on 10 April 2012).

way of either preventing their development (i.e., climate change affects human rights and thus countries must slow the process of industrialization) or of conditionalising climate change adaptation funds.[1253]

Despite the above criticisms, a human rights-based approach to climate change, if consistently applied, could be useful in a situation where human rights law is used to construct an accountability framework for vulnerable communities and/or countries. Human rights law could show that a certain state has failed in its legal human rights obligations and that such a failure has resulted in a violation of individuals' rights.[1254] In this context, human rights law may protect the rights of those vulnerable to the effects of climate change.[1255]

6.3 The duty to cooperate and the extraterritorial application of human rights law

The extraterritorial dimension of human rights is the central issue concerning the human rights-based approach to climate change in Africa. Knox proposes two approaches for the application of the human rights-based approach to climate change: extending the environmental human rights jurisprudence extraterritorially, and basing that jurisprudence on the international duty of cooperation.[1256] The absence of a territorial jurisdiction clause in the Banjul Charter presents an avenue for the AU to apply the Charter extraterritorially.[1257] The application of both approaches is considered in this part of this dissertation.

1253 See the UK OHCHR report submission 3

1254 Cameron and Limon (2012) *Review of European Community and International Environmental Law* 219.

1255 Knox (2009) Harvard *Environmental Law Review* 477.

1256 Knox JH "Climate change and human rights law" 2009 50/1 *Virginia Journal of International Law* 200.

1257 Art 1 of the European Convention on Human Rights provides for jurisdictional clause by stating that 'the high contracting parties shall secure to everyone within their jurisdiction the rights and freedoms defined in section one of this Convention'.

6.3.1 The duty of states to cooperate

State cooperation is a concept[1258] which requires states to work together in addressing transboundary issues.[1259] This concept is recognised by the UN Charter and related human rights conventions. The UN Charter emphasizes the importance of state cooperation in the implementation of international law.[1260] Article 1 of the UN Charter describes the purposes of the United Nations, including "to achieve international cooperation in solving international problems of an economic, social, cultural, or humanitarian character; and promoting and encouraging respect for human rights and fundamental freedoms for all without distinction as to race, sex, language, or religion".[1261]

Article 55 of the UN Charter provides:

> With a view to the creation of conditions of stability and well-being which are necessary for peaceful and friendly relations based on respect for the principle of equal rights and self-determination of peoples, the United Nations shall promote:
> a. Higher standards of living, full employment, and conditions of economic and social progress and development;
> b. Solutions of international economic, social, health, and related problems...and
> c. Universal respect for and observance of, human rights and fundamental freedoms for all without distinction as to race, sex, language, or religion.[1262]

Article 56 provides further that "member states pledge to take joint and separate action in cooperation with the United Nations for the achievement of the purposes set forth in Article 55."[1263]

1258 Rodriguez-Rivera L E "Is human right to environment recognized under international law? It depends on the source" (2001) *Colorado Journal of International Law and Policy*" 12:1.

1259 Wewerinke and Doebbler (2010) *Chinese Journal of International law* 21.

1260 See the speech by Abdulla Shahid, the Minister of Foreign Affairs of the Maldives at the opening of the Small Island States conference on the human dimension of climate change on 13 November 2007 available at htrp://www.maldivesmission.chi/fileadmin/pdf/Enviroment/Statement_by_Minister_of_Foreign_Affairs_FINAL.Pdf (Accessed on 29 March 2012).

1261 See Article 1(3) of the Charter of the United Nations 1945.

1262 See Article 55 of the Charter of United Nations 1945. In the OHCHR report on climate change and human rights it is said that "International cooperation to promote and protect human rights lies at the heart of the Charter of the United Nations.

The Universal Declaration of Human Rights (UDHR)[1264] also supports the need for states to cooperate by stating that everyone is entitled to a social and international order in which human rights can be fully realized.[1265] The importance of state cooperation is explicitly stated in provisions of the International Covenant on Economic, Social and Cultural Rights,[1266] the Convention on the Rights of the Child,[1267] the Convention on the Rights of Persons with Disabilities,[1268] and in the Declaration on the Right to Development.[1269]

The Committee on Economic, Social and Cultural Rights (CESCR) has confirmed that:

> in accordance with article 55 and 56 of the Charter of the United Nations, with well-established principles of International Law, and with the provisions of the Covenant itself, international cooperation for development and thus for the realization of economic, social and cultural rights is an obligation of all States.[1270]

This is consistent with Article 2(1) of the International Covenant on Economic, Social and Cultural Rights (ICESCR), which provides that a state has an obligation to:

> Take steps, individually and through international assistance and cooperation, especially economic and technical, to the maximum of its available resources, with a view to achieving progressively the full realization of the rights recognized in the present Covenant by all appropriate means, including particularly the adoption of legislative measures.[1271]

1263 See Article 56 of the Charter of the UN 1945.
1264 The Universal Declaration of Human Rights 1948 UNGA Res.217 UN Doc A/810.
1265 See Article 28 of UDHR 1948.
1266 Art 2(1) of the UN Covenant on Economic, Social and Cultural Rights of 1966.
1267 Art 4 of the Convention on the Rights of the Child of 1989.
1268 Art 4(2) of the Convention on the Rights of Persons with Disabilities of 2006.
1269 Arts 3(3), 4, and 10 of the UN Declaration on the Right to Development of 1986. See the OHCHR report 85.
1270 See UN committee on economic, social and cultural rights (UNCESCR) general comment 4: 14 UN Doc.E1991/23/.
1271 Art 2(1) of the ICESCR 1966.

The African Banjul Charter also provides for the duty of states to cooperate in realising solidarity rights under the Charter. Article 22 states that "...States shall have the duty, individually or collectively, to ensure the exercise of the right to development."[1272]

These provisions exhibit the importance of cooperation amongst states in addressing transboundary challenges. This becomes more relevant with regard to responding to climate change through the human rights approach, because climate change is a global problem that requires cooperation amongst states in order to curb it.[1273] Knox argues that the duty to cooperate under international human rights law is the most feasible basis for extending environmental human rights jurisprudence to climate change.[1274] Knox is correct, because some human rights problems are inherently global and require a coordinated international resolve to repond to them effectively. Climate change is a typical example of a human right problem of this nature.[1275]

A duty to cooperate in this context requires states to work together to protect everyone in the world community from the consequences of climate change.[1276] In this way, human rights law could provide the standard that negotiations under the UNFCCC should meet.[1277] This could ultimately result in an agreement that provides for the reduction of GHG emissions to levels that will not impede the enjoyment of human rights of those most vulnerable to climate change, and would allow for adaptation to the inevitable consequences of climate change.[1278] Taking climate change as a human rights challenge subject to the duty of states' cooperation helps to insure that

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1272 Art 22(2).

1273 Knox (2009) *Virginia Journal of International Law* 212-213.

1274 Knox (2009) 213.

1275 Weerinke and Doebbler (2010) *Chinese Journal of International Law* 3.

1276 Knox (2009) *Virginia Journal of International Law* 213.

1277 OHCHR report (2009) 99. The OHCHR report states clearly that "international human rights law complements the UNFCCC by underlining that international cooperation is not only expedient but also a human rights obligation and that its central objective is the realisation of human rights."

1278 Knox (2009) *Virginia Journal of International Law* 213 and Cameron and Limon (2012) *Review of European Community and International Environmental Law* 205.

governments do not lose sight of the consequences climate change has on real people and communities, including those in other countries.[1279]

From a regional perspective, the duty to cooperate under the African Banjul Charter is useful in this discussion. This is due to the fact that solidarity rights[1280] under the charter are characterised by an understanding that the goal can be achieved only through collective state action. Solidarity rights are therefore based on collective state obligations.[1281] The AU could therefore apply the human rights-based approach to climate change by invoking solidarity rights under the Charter, such as the right of peoples to a satisfactory environment and the right to development. This entails that AU member states must cooperate in an effective manner in formulating common positions on climate change and in formulating climate change programmes, policies and laws.

6.3.2 Extraterritorial application of human rights law

The extraterritorial application of human rights treaties could be an input into the human rights-based approach to climate change in Africa. It is not a new concept.[1282] Extraterritorial obligation includes the obligation to realise human rights, given the maximum resources available to states, when acting individually and through international assistance and cooperation, and to guarantee those rights without discrimination on the basis *inter alia* of national or social origin.[1283] In this context extraterritorial obligations arise when a state exercises control, power, or authority over

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1279 Knox (2009) *Virginia Journal of International Law* 214.

1280 Arts 22 and 24.

1281 Van der Have N "The right to development and state responsibility: Can states be held to account?" 2013 *SHARES Research Paper Amsterdam Center for International Law* 5.

1282 See Meron T "Extraterritoriality of human rights treaties" 1995 89 *American Journal of International Law* 78 and Heijer M *Europe and extraterritorial asylum* (Hart Publishing Oxford 2012).

1283 De Schutter O *et al* "Commentary to the Maastricht principles on extraterritorial obligations of states in the area of economic, social and cultural rights" 2011 *Human Rights Quarterly* 1086.

people or situations located outside its sovereign territory in a way that could have an impact on the enjoyment of their human rights by those people.[1284]

Even though the ICCPR obliges a state party to secure the relevant rights and freedoms only for everyone within its territory or subject to its jurisdiction,[1285] the ICESCR does not have a jurisdictional clause that restricts its scope and application..[1286] In its general comments on the right to social security the ICESR stipulated that:

> States parties should extra-territorially protect the right to social security by preventing their own citizens and national entities from violating this right in other countries. Where state parties can take steps to influence third parties (non-state actors) within their jurisdiction to respect the right, through legal or political means, such steps should be taken in accordance with the Charter of United Nations and applicable international law.[1287]

The ICJ noted in its *Advisory Opinion on the Legal Consequences of the Construction of a Wall in the Occupied Palestinian Territory* that:

> While the jurisdiction of states is primarily territorial, it may sometimes be exercised outside the national territory. Considering the object and purpose of the International Covenant on Civil and Political Rights, it would seem natural that, even when such is the case, States parties to the Covenant should be bound to comply with its provisions.[1288]

Also, the Committee on the Rights of the Child suggested extraterritorial application in its General Comment 5, by arguing that states, which ratify human rights conventions

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1284 De Schutter *et al* (2012) *Human Rights Quarterly* 1090.

1285 Art 2.

1286 Art 2(1). See also Coomas (2004) *Extraterritorial application of human rights treaties* 183-200.

1287 UN committee on economic, social and cultural rights general comment 19, UN Doc.E/C.12.GC/19 (23 November 2007) para 54.

1288 See *Palestianian Wall Case* (2004) ICJ Rep 136 para 109. See Boyle (2012) *Environmental Journal of International Law* 636 and Meron (1995) *American Journal of International Law* 78.

"take upon themselves obligations not only to implement [them] within their jurisdiction, but also to contribute through international cooperation, to global implementation."[1289]

Although many cases of the extraterritorial application of treaties do not refer to environmental law, transboundary pollution falls within the jurisdiction of the polluting states under the transboundary pollution principle. The principle requires that states act to ensure that their activities do not cause significant transboundary harm in any form.[1290] The state that fails to control harmful activities within its territory which cause or risk causing foreseeable environmental harm extraterritorially does owe certain human rights obligations to those affected, because they are within its jurisdiction to control, even if they are not within its territory.[1291]

The OHCHR report proposes four distinct types of extraterritorial obligation in the context of international cooperation to promote and protect economic, social, and cultural rights.[1292] OHCHR argues that states have legal obligations to:

- Refrain from interfering with the enjoyment of human rights in other countries;
- Take measures to prevent third parties (e.g. private companies) over which they hold influence from interfering with the enjoyment of human rights in other countries;
- take steps through international assistance and cooperation, depending on the availability of resources, to facilitate fulfillment of human rights in

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1289 See OHCHR "UN committee on the rights of the child (CRC) general comment 5: General measures of implementation for the convention on the rights of the child" 7 UN Doc CRC/GC/2003/5.

1290 See Trail smelter *arbitration case* (*United States of America v. Canada*) 1941 U.N.Rep. Int'L arbitration awards 1905 1949). See also Kerkhof M "The trail smelter case re-examined: Examining the development of national procedural mechanisms to resolve trail smelter type dispute" 2010 *Utrecht Journal of international and European law* 67-82.

1291 Boyle (2012) *Environmental Journal of International Law* 640.

1292 OHCHR (2009) report 86.

other countries, including disaster relief, emergency assistance, and assistance to refugees and displaced persons; and

- ensure that human rights are given due attention in international agreements and that such agreements do not adversely impact upon human rights.

Generally, the obligations above suggest that all states party to ICESCR have a legal obligation through international cooperation to reduce emissions levels consistent with full enjoyment of human rights in all countries.[1293] This is an innovative contribution to both the evolution of human rights law (as it pertains to international cooperation) and potentially, to the evolution of climate change policy.[1294] Based on the proposition in the OHCHR report, one may argue further that all states party to ICESCR have a legal obligation to fund adaptation measures in vulnerable countries (depending on the availability of resources), and to ensure that the international climate change agreement is consistent with those human rights obligations and, at the very least, does not adversely impact on human rights.[1295]

However, it is difficult to ascertain the extraterritorial obligations of a particular state on climate change issues. Climate change is caused by a multiplicity of states contributing to the emission of GHGs, so that it is difficult to show a direct connection between a perpetrator and a victim.[1296] It is important for the OHCHR to continue investigating the best way to effect the extraterritorial obligation, particularly in climate change issues, for the sake of further clarification.[1297] Such clarification is pertinent for vulnerable developing countries and communities because it would open the way for them to hold developed states accountable for the harms they havew caused and continue to cause,

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1293 Shelton D "Human rights and climate change" 2009 *Buffet Center for International and Comparative Studies* 14.

1294 See Knox" (2009) 33 *Harvard Environmental Law Review* 477 493-496.

1295 Wewerinke and Doebbler (2010) *Chinese Journal of International Law* vol 10 issue 1 54.

1297 Boyle (2012) *Environmental Journal of International law* 641.

1297 Cameron and Limon (2012) *Review of European Community and International Environmental Law* 212.

and enable them to seek legal redress through either a domestic mechanism or an international mechanism such as a treaty body or a special procedure.[1298]

If well clarified, the extraterritorial application of human rights may promote the UNFCCC process and the role of vulnerable, poor countries. This is because it will be possible to use human rights law to hold a certain state accountable for damage caused by climate change. It may have implications for the willingness of states to accept deeper emission reduction commitments and a system of the monitoring, review and verification of compliance with those commitments.[1299] However, this would largely depend on states legal commitments under UNFCCC.

Extraterritorial obligations could be very useful in Africa, because both the Constitutive Act of the AU[1300] and the Charter reiterate the duty of state cooperation in realising solidarity rights. The Constitutive Act stipulates that states have the duty to promote international cooperation, having regard to the UN Charter and the Universal Declaration of Human Rights.[1301] Thus, the Constitutive Act of the AU reiterates the international law on state cooperation and extraterritorial obligations in human rights law.

The Banjul Charter does not limit the territorial or jurisdictional reach of any categories of rights.[1302] Thus, the Charter is flexible and in this case presents an avenue for the extraterritorial application of human rights.
Article 21(4) provides:

1298 Cameron and Limon (2012) *Review of European Community and International Environmental Law* 212.

1299 Cameron and Limon (2012) *Review of European Community and International Environmental Law* 213.

1300 Art 3(e) of the Constitutive Act of the AU of 2002.

1301 Art 3(e).

1302 Bulto TS "Towards rights-duties congruence: Extraterritorial application of the human right to water in the African human rights system" 2011 *Netherlands Quarterly of Human Rights* 29/4 503.

State parties to the present Charter shall individually and collectively exercise the right to free disposal of their wealth and natural resources with a view to strengthening African unity and solidarity.

Article 22 provides:

1. All peoples shall have the right to their economic, social and cultural development with due regard to their freedom and identity and in the equal enjoyment of the common heritage of mankind.
2. States shall have the duty, individually or collectively, to ensure the exercise of the right to development.

The above provisions call for cooperation among African states in the spirit of African solidarity. The Charter requires parties to fulfill their human rights duties individually and collectively.

In the case of *Democratic Republic of Congo (DRC) v Burundi, Rwanda and Uganda*,[1303] the African Human Rights Commission held *inter alia* that the Charter incorporates the principle that enjoins states from violating human rights beyond their borders. In this case, the DRC accused Burundi, Rwanda and Uganda of invading its territory and complained about the occupation of its territory by armed forces of the three respondent states.[1304] The DRC complained of violation of its citizens' human rights as guaranteed by the Banjul Charter. The Commission found the three respondent states in violation[1305] *inter alia* of the right to respect the life and integrity of a person,[1306] the right to dignity,[1307] the right to freedom of movement,[1308] the right to physical and mental health,[1309] the right to property,[1310] the people's right to dispose of

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1303 Communication 227/1999 activity report (2006) (hereinafter DRC *Invasion case*).
1304 DRC *invasion case* para 96.
1305 DRC invasion case para 98.
1306 Art 4.
1307 Art 5.
1308 Art 12.
1309 Art 16.
1310 Art 14.

their wealth and natural resources,[1311] and the people's right to economic, social and cultural development.[1312]

The acts of violation of the above human rights were perpetrated entirely within the DRC territory, outside the boundaries of any of the respondent states. However, this did not hinder the Commission from attributing responsibility to the respondent states for the violations of human rights they committed out of their territories.

Another authoritative case is that of *Burundi v. Kenya, Tanzania, Rwanda, Uganda, DRC and Zambia.*[1313] In this case the respondent states were accused of violating human rights within Burundi territory by imposing an embargo against Burundi as an expression of protests against an unconstitutional change of government.[1314]

Although the Commission did not find any respondent states to be in violation of human rights,[1315] it noted that it would have held any state responsible for the violation of human rights in the situation if and when they took actions that were disproportionate to the end sought or were indiscriminate or lacked monitoring mechanisms to ensure that the basic rights of individuals and groups were not jeopardized.[1316]

Thus, although the Commission has no cases on the extraterritorial application of the African Charter on environmental or climate change-related issues, it is evident that the approach is not novel in Africa.

The extraterritorial application of the African Human Rights Charter could have implications for transboundary polluters in Africa. The Commission confirmed in the

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1311 Art 21.
1312 Art 22.
1313 Communication 157/96 17th Annual Activity Report (2003-2004) (hereinafter *Burundi embargo case*).
1314 *Burundi embargo case* para 52.
1315 *Burundi embargo case* para 79.
1316 *Burundi embargo case* para 75.

DRC invasion and *Burundi Embargo* cases that states party to the Banjul Charter have extraterritorial human rights duties to respect human rights, and as such, states have to abstain from acts of violation of the human rights of individuals and groups in other states.[1317]

This presents an opportunity for Africa to address the consequences of climate change through a human rights lens. Through an extraterritorial application of the Banjul Charter, consequences of climate change such as the internal displacement of persons and issues pertaining to the right to water might be addressed. For instance, a state could severely jeopardise the human right to water from within its borders. As a result, the co-riparian states may fail to fulfil human rights obligations to their inhabitants unless there were ways of sharing resources coupled with an accountability mechanism. Due to the impact of climate change on the availability of water and the particular spatial distribution of water resources in Africa, a state's extraterritorial duty to respect the human right to water could assist in dealing with water scarcity due to climate change. This would need the active cooperation of member states of the AU and strong continental and sub-regional leadership.

6.4 African human rights law and climate change

The Heads of State and Government adopted the African Charter on Human and Peoples' Rights (the Banjul Charter) during the eighteenth ordinary assembly of the defunct OAU.[1318] Almost all African States have ratified the Charter.[1319] Thus, almost all

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1317 Bulto (2011) *Netherlands Quarterly of Human Rights* 509.

1318 June 1981 in Nairobi Kenya.

1319 All AU member states have ratified the charter except the South Sudan. See the ratification table African charter on human and people's rights available at http://www.achpr.org/instruments/achpr/ratification (accessed on 11 October 2013).

AU Member States have undertaken a formal commitment to the promotion, protection and fulfilment of human rights across the continent.[1320]

The main objective of the Charter is based on African traditional philosophy and responsiveness to the real needs of Africa.[1321] The most important need is the achievement of socio-economic development in the continent.[1322] To achieve this objective, the charter provides for extensive civil and political rights as well as solidarity and socio-economic rights. These rights are essential to the achievement of sustainable development as they ensure empowerment, access to social services, and generally the right to a satisfactory environment.[1323]

An environmental right in section 24 of the charter is a progressive solidarity right that is central to almost all socio-economic rights.[1324] To implement this right, the charter obliges its States Parties to recognize the rights, duties and freedoms enshrined in the charter and to undertake to adopt legislative[1325] or other measures to give effect to them.[1326]

The Banjul Charter is the first and foremost international Treaty, which includes an environmental right. Article 24 states that "all peoples shall have the right to a general satisfactory environment favourable to their environment". Following this mandatory requirement under the charter, most African countries have incorporated the provisions

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1320 Ouguerouz *F African charter on human and peoples' rights: A comprehensive agenda for human dignity sustainable democracy in Africa* (2003 Kluwer law international New York) 364.

1321 See Amechi (2010) *Law Environment and Development Journal* 67.

1322 See Ouguerouz (2003) African charter on human and people's rights 41.

1323 Mwebaza (2010) "Climate change and the international human rights frameworks in Africa" 234.

1324 See Article 24 of the African charter on human and peoples' rights Nairobi 27 June 1981, OAU Doc.CAB/LEG/76/3 (hereinafter referred to as Banjul Charter).

1325 This obligation applies irrespective of whether a country practices either "monism", where international agreements are automatically integrated into their municipal system and normally have the same standing as municipal laws, or "dualism", whereby such agreements need to be formally incorporated into municipal legal order through the enactment of a special law. See Ouguergouz F African charter on human and peoples' rights: A comprehensive agenda for human dignity and sustainable democracy in Africa (Kluwer Law International: Kluwer 2003) 51-52.

1326 Art 1.

of the charter, especially the right to a clean and healthy environment, in their municipal laws.[1327]

The AU also acknowledged the impact of climate change through the adoption of the 2007 declaration on climate change and the 2009 declaration on the African process of combating climate change respectively.[1328] In November 2009 the African Commission on Human and People's Rights adopted resolution 153 on the need to study the impact of climate change in the enjoyment of human rights in Africa.[1329] The discussion on the link between human rights and climate change is therefore based on articles 21, 22 and 24 of the Banjul Charter and resolution 153 of the African Human Rights Commission.

6.4.1 The African human rights commission's resolution 153

Apart from the two cases discussed above, the African Commission recognised the link between human rights and environmental degradation in Africa[1330] through its resolution 153 adopted in 2009. The African Commission made a resolution on climate change and human rights and the need to study climate change impacts in Africa at its ordinary session held from 11-25 November 2009 in Banjul, Gambia.[1331] The resolution is based, *inter alia*, on articles 22 and 24 of the African Charter on Human and Peoples' Rights, relating to the right of peoples' to economic, social and cultural development and the right of peoples to a satisfactory environment favourable to their development.[1332]

1327 For a summary of African countries providing for the right in their municipal laws see Bruch C, Coker W and Arsdale C "Breathing life into fundamental principles: Implementing constitutional environmental protection in Africa" (2000) 7 *South African Journal of Environmental Law & Policy* 21. See for example section 24 of the South African constitution as cited in Du Plessis W and Du Plessis AA "Striking sustainability balance in South Africa" in Faure M and Du Plessis W (eds) *The balancing of interests in environmental law in Africa* (Pretoria University Law Press Pretoria 2011).

1328 The two declarations are discussed in detail in chapter 5 of this work.

1329 ACHPR/Res 153 (XLVI) 09: Resolution on climate change and human rights and the need to study its impacts in Africa.

1330 Beyerlin and Marauhn (2011) 395.

1331 ACHPR/Res 153 (XLVI) 09: Resolution on climate change and human rights and the need to study its impacts in Africa.

1332 See the preamble to the ACHPR/Res 153 (XLVI) 09.

The resolution also makes reference to Article 2 of the African Convention on the Conservation of Nature and Natural Resources (Revised Nature Convention) 2003, which, among other things, provides for "socially acceptable development policies and programmes" guided by human rights principles including the right to development, and the right of all peoples to a satisfactory environment favourable to their development.[1333] The resolution urges the Assembly of Heads of State and Government of the AU to ensure that human rights standard safeguards, such as the principle of free, prior and informed consent, be included into any adopted legal text on climate change as preventive measures against forced relocation, unfair dispossession of properties, loss of livelihoods and similar human rights violations. The AU Assembly of Heads of State and Government is also urged to ensure that special measures are taken for the protection of vulnerable groups such as children, women, the elderly, indigenous communities and victims of natural disasters and conflicts are included in any international agreement or instruments on climate change.[1334]

The resolution calls upon the AU Assembly of Heads of State and Government to take all necessary measures to ensure that the African Commission is included in the AU's negotiating team on climate change. Finally, the African Commission resolved to carry out a study on the impact of climate change on human rights in Africa.

Although the African Human Rights Commission has not yet come up with a report detailing the impact of climate change on the enjoyment of human rights in Africa, the resolution 153 and cases discussed above evidence that climate change impact on Africa can be addressed through a human rights lens. Since its inception, the AU is committed to dealing with human rights abuses in Africa through its non-indifference

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1333 For detailed discussion of the right to a satisfactory environment under the African Charter on Human and Peoples' Rights, see Amechi EP "Enhancing environmental protection and socio-economic development in Africa: A fresh look at the right to a general satisfactory environment under the African charter on human and peoples' rights" 2009 5/1 *Law, Environment and Development Journal* 58-71.

1334 See ACHPR/Res 153 (XLVI) 09: 14.

policy.[1335] Thus, the AU recognises a range of social, economic and cultural rights and human-centered development.[1336] The AU can therefore apply a human rights-based approach to climate change to strengthen its common position on international climate change negotiations. The AU should strengthen the African Human rRghts Commission by building its capacity on climate change issues and engage it in forming climate change positions. Since the AU made human rights part of its programmes, activities and institutions,[1337] it should develop key legal and policy frameworks that embody commitments made by African leaders to promote and protect the rights and welfare of vulnerable communities and thereby address vulnerability associated with climate change.

6.3.1.1 The implications of climate change for the enjoyment of human rights in Africa

The African Human Rights Commission's resolution 153 on climate change and human rights and the need to study its impacts in Africa stipulates clearly that climate change has implications for the enjoyment of certain human rights in Africa. The resolution borrows significantly from UNHRC Resolutions 7/23 and 10/4 respectively. According to the UNHRC Resolution 7/23 and the study by the OHCHR, climate change may have implications for the enjoyment of the right to life;[1338]the right to adequate food;[1339] the right to water;[1340] the right to health;[1341] and the right to adequate housing.[1342]

The OHCHR study was based on the Fourth Assessment Report of the IPCC, which reveals the impact of climate change on human rights.[1343] Though not couched in human rights terms, it is clear from the different scenarios given and the projected

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1335 Art 4 of the Constitutive Act of the AU of 2002.
1336 Art 3 (e) and (h).
1337 Art 3(h) of the Constitutive Act of AU of 2002.
1338 OHCHR (2009) report 8.
1339 OHCHR (2009) report 9.
1340 OHCHR (2009) report 10.
1341 OHCHR (2009) report 11.
1342 OHCHR (2009) report 12.
1343 Beyerlin and Marauhn (2011) 395.

impacts of climate change in Africa that human rights will be the first casualties of climate change. Africa is already grappling with the challenges of promoting and protecting human rights. Climate change threatens to make the already difficult task of promoting and protecting human rights in Africa a Herculean one.[1344] I shall allude to the aforementioned rights in order to show how climate change may have implication for the enjoyment of specific human rights in Africa. The African Human Rights Charter is the only treaty that contains the two solidarity rights[1345] which promote the preservation of an environment conducive to the enjoyment of human rights despite the threats to the environment posed by climate change.

6.4.1.1.1 The right to life

The right to life is protected under a number of international instruments, including the UDHR,[1346] the ICCPR,[1347] the United Nations Convention on the Rights of the Child,[1348] the African Charter on Human and Peoples' Rights,[1349] and the African Charter on the Rights and Welfare of the Child.[1350] In its General Comment on the right to life the UN Human Rights Committee asserted that the right to life must be given a wide and purposive interpretation as opposed to one that is narrow and restrictive.[1351] It advised that the protection of this right requires States to take measures intended to reduce infant mortality and to increase life expectancy.[1352]

1344 Mwebaza (2009) 234

1345 Art 22 provides for the right of peoples to development and Art 24 provides for the peoples' right to a satisfactory environment.

1346 Art 3 of the universal declaration of human rights GA.res.217A (111) UN Doc. A/810.

1347 Article 6 of the international covenant on civil and political rights UNGA res.2200 (XXI)(annex) 16 December 1966 (999 UNTS 171).

1348 Art 6 UN convention on the rights of the child GA res.44/25 of 20 November 1985.

1349 Art 4.

1350 Art 5.

1351 Naser MM "Human rights implications of climate change induced displacement" 2009 21/3 *Bond Law Review* 145.

1352 UN human rights committee general comment no. 6: The right to life (Article 6): 30/4/82 UN Doc. HRI/Gen/1/Rev.7 at 128.

Thus, the right to life requires not only that people not be arbitrarily deprived of their lives but also that they be able to achieve a decent quality of life by having the means available for them to do so.[1353] The right to life can also be viewed more broadly because of its interrelationship with other human rights such as the right to health, an adequate standard of living, food etc.

The right to life, as recognised and articulated in the above international human rights instruments, is threatened in Africa due to the potential impacts of climate change. The IPCC fourth assessment report identifies several impacts of climate change that are bound to affect the right to life. They may be instant, as in the results of climate-change brought about by extreme weather, or may appear gradually, as in the deterioration of health arising from diminishing access to safe drinking water. Susceptibility to disease increases with the degradation of the environment, which is the source of livelihood for communities.[1354] Other impacts of climate change linked to the right to life include death resulting from diseases, floods, fires, starvation, extreme heat, rising seas and many other factors. Africa stands at greater risk of these threats than any other continent because of its weak response system. Climate change may impact on the right of life of millions of Africans. Kovats and Haines[1355] assert that unless climate change is reversed, the public health burden of climate change is likely to almost double in 2020. There is enough evidence that climate change has already started to disrupt the capacity of several states in Africa to generate wealth by decreasing the gross national product and hindering their ability to give effect to basic human rights.[1356]

6.4.1.1.2 The right to food

The right to adequate food is articulated in a number of international human rights instruments including the universal declaration of human rights (UDHR),[1357] the

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1353 Naser (2009) *Bond Law Review* 145.

1354 Doussa *et al* "Human rights and climate change" 4.

1355 Korats RS and Haines "Global climate change and health: Recent findings and future steps 2005 *Canadian Medical Association Journal* 172(4) 501-502.

1356 Garcia (2008) *African Human Security Review* 3.

1357 See Art 25 of the Universal Declaration of Human Rights of 1948.

international covenant on economic, social and cultural rights (ICESCR)[1358]and the international convention on the rights of the child (CRC).[1359]

Article 25 of the UDHR states:

> Everyone has the right to the standard of living adequate for the health and wellbeing of himself and of his family, including food, clothing, housing, and medical care and necessary social services...

However, this right was given a normative character after the adoption of the ICESCR in 1966. Article 11 (1) and (2) of the ICESCR provides:

1. The state parties to the present covenant recognize the right of everyone to an adequate standard of living for himself and his family including adequate food, clothing and housing; and to the continuous improvement of living conditions. State parties will take appropriate steps to ensure the realization of this right...
2. The state parties to the present covenant, recognizing the fundamental right of everyone to be free from hunger, shall take, individually and through international cooperation, the measures including specific programmes which are needed: to improve methods of production, conservation and distribution of food...taking into account the problems of both food importing and food exporting countries, to ensure an equitable distribution of world food supplies in relation to need.[1360]

Thus, the ICESCR recognizes the right of everyone to ... adequate food and the fundamental right of everyone to be free from hunger. The ICESCR also enjoins parties to make food available to their people *inter alia* through the use of technical and scientific knowledge.

The Committee on Socio-economic and Cultural Rights affirms that the right to adequate food is indivisibly linked to the inherent dignity of the human person and is indispensable for the fulfillment of other human rights enshrined in the International Bill of Human Rights.[1361] The committee further notes that it is also inseparable from social

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1358 See Art 11 (1) and (2) of ICESCR).

1359 See Art 24 of CRC.

1360 Art 11(1) and (2) of the International Covenant on Economic, Social and Cultural Rights of 1966.

1361 UNGA Res.2200 (XXI) (annex) 16 December 1996.

justice. The UN special rapporteur on the Right to Food has described the right as follows:

> The right to adequate food is a human right, inherent in all people, to have regular, permanent and unrestricted access, either directly or by means of financial purchases, to quantitatively and qualitatively adequate and sufficient food corresponding to the cultural traditions of people to which the consumer belongs, and which ensures a physical and mental, individual and collective fulfilling and dignified life free of fear.[1362]

The right to adequate food is realized when every man, woman and child, alone or in community with others, has physical and economic access at all times to adequate food or means for its procurement. Although the right to adequate food will have to be realized progressively, states have a core obligation to take the necessary action to mitigate and alleviate hunger and malnutrition. [1363] In the Botswana case of *Sesana v Attorney General*[1364] the High Court of that country, (Phumaphi J), held that the stoppage of food rations to residents in need was tantamount to condemning them to death by starvation. In *Orga Tellis v Bombay Municipality*, the Supreme Court of India observed that "the right to life is illusory without a right to protection of the means by which alone life can be lived."[1365] In the case of *Godawat Pan Masala products IP Ltd.*[1366] the Supreme Court of India stated *inter alia* that:

> ...all human rights are interdependent, you take away one, you take away the others. Deny food, deny livelihood, deny shelter and you deny liberty, freedom and ultimately the right to life and all that goes with life...

In essence the right to life is not limited to being free from arbitrary extermination; it also extends to not being prevented from accessing the goods that guarantee a dignified

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1362 Ziegler J "The right to food: A report by the special rapporteur on the right to food to the commission on human rights 57th session (2001)UN Doc. E/CN.4/2001/53 2. Available at: http://daccessdds.un.org/doc/UNDOC/GEN/G01/110/35/PDF/G0111035.pdf?OpenElement (accessed on 10 April 2012).

1363 Mwebaza (2009) 237.

1364 [2006] 2 BLR 633.

1365 AIR (1986) 8 SCC 8.

1366 AIR (2004) 7 SCC 68.

existence.[1367] The sum effect of the *dicta* articulated by the courts above suggests that it is pointless to protect the right to life when the means to live remain unprotected.

Climate change will have a great impact on the enjoyment of the right to food in Africa because of the projected variations of rainfall patterns and the decline in precipitation, which are already being experienced in many countries in sub-Saharan Africa.[1368] Increased temperatures, a reduction in the availability of water for irrigation, as well as desertification and land degradation will affect food production in an already largely underfed continent and lead to gross violations of the right to food in many countries which are already struggling to feed their starving populations.[1369]

The IPCC estimates that by 2100, parts of the Sahara Desert area are likely to emerge as the most vulnerable, showing likely agricultural loses of between two and seven per cent of gross domestic product (GDP).[1370] Western and Central Africa are also projected to experience impacts ranging from two to four per cent in agricultural losses. Northern and southern Africa, on the other hand, are projected to have agricultural losses of 0,4 to 1,3 per cent, Further assessments based on various scenarios also suggest that the Sahel and the Great Lakes region and parts of East Africa will be negatively affected because of possible changes in the seasonality of rainfall.[1371]

All of the projected impacts on agriculture and food production simply mean in human rights terms that the integrity of the right to food is at stake and that many African countries will not be able to meet their international obligations to feed their people because of climate change. The food crisis in Africa will be exacerbated by the fact that

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1367 See *Velasquez Rodriguez case* of July 29 (1988) 4 para 14.

1368 Bashir R and Briceno S "Climate change and disaster risk reduction in Africa" in Low PS (ed) Climate change and Africa (Cambridge University Press Cambridge 2005) 275.

1369 Mwebaza (2009) 238.

1370 Parry *et al* (2007) Climate *change* 433-467.

1371 Hulme *et al* "Global warming and African climate change" 2005 32 and Balling (2005) "Interactions of desertification and climate change in Africa" 45.

it will not only be food crop production that will be affected, but also fisheries and livestock.[1372]

The IPCC states that an investigation of the potential impact of climate change on livestock farming in Africa showed that a warming of 2, 5 degrees Celsius would probably decrease the income of large livestock farms by 22 per cent or US$13 billion and a warming of five degrees Celsius would probably reduce income by as much as 35 per cent or US$20 billion.[1373]

It is therefore obvious that the impact of climate change on the right to food in Africa will be severe, because it is set to affect not only cereal production, but also fisheries and livestock production. This becomes even more serious when it is realised that climate change is due to affect the incomes of many African countries whose GDPs still heavily depend on agriculture.[1374] The right to food will be even more challenging to protect and promote. Article 11 of the ICESCR provides for the obligation for states to take steps to progressively achieve the full realisation of the right to adequate food. This imposes an obligation on states to move as expeditiously as possible towards that goal. The right to adequate food thus requires the adoption of measures, which, at the national level, might better shield vulnerable segments of the population from the impact of climate change. [1375] The Committee on Economic, Social and Cultural Rights has insisted on the need for states to work towards the adoption of national strategies to ensure food and nutritional security for all, based on human rights principles that define the objectives and the formulation of policies and corresponding benchmarks. If Africa is to avoid further human tragedies resulting from food shortages, the African governments that will be most affected by the impacts of climate change would be well advised to

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1372 See the information available at http://www.who.int/malaria/wmr2008.chp3-EN.pdf. (accessed on 13 May 2012).

1373 Parry *et al* (2007) *Climate change* 433-467.

1374 Mwebaza (2009) 257.

1375 Dupont A and Pearman G "Heating up the planet: climate change and security" 2006 *Lowy Institute Paper* 12 30-31. Available at: http://www.lowyinstitute.org/Publication.asp?pid=391 (accessed on 13 May 2012).

consider the projected impacts of climate change on their food policies and to devise appropriate strategies from a rights-based perspective.[1376]

6.4.1.1.3 The right to water

The Committee on Economic, Social and Cultural Rights adopted, in November 2002, a General Comment No. 15 on the right to water.[1377] Noting that water is a limited natural resource and a public good fundamental to life and health, the Committee called it a prerequisite for the realization of other human rights. It determined that the human right to water entitles everyone to sufficient, safe, acceptable, physically accessible and affordable water for personal and domestic uses.[1378]
Thus, although the ICESCR does not explicitly provide for the right to water, this right is inferred from the article 11(1) on the right to an adequate standard of living, which includes the right to adequate food, clothing, and housing, and to the continuous improvement of living conditions.[1379] The Committee noted that the right to water is inferred in the UDHR,[1380] the ICESCR,[1381] the Convention on the Rights of the Child,[1382] the Convention on the Elimination of all Forms of Discrimination against Women,[1383] and also in two of the Geneva Conventions.[1384]

The UN Committee on Economic, Social and Cultural Rights states that water is a "public good" and a "prerequisite for the realisation of other rights."[1385] The Committee

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1376 http://www.twnside.org.sg/title2/susagri/susagri051.htm [accessed on 13 may 2012].
1377 This right is inferred from these provisions.in Articles 11 and 12 of the ICESCR.
1378 Shelton (2010) "Human rights and the environment: Substantive rights" 273.
1379 Barrett D and Jaichand V "The right to water, privatized water and access to justice: Tackling United Kingdom water companies' practices in developing countries" 2007 *South African Journal on Human Rights* vol. 23, 544.
1380 Art 25.
1381 Art 12.
1382 Art 24.
1383 Art 14.
1384 Geneva Convention relative to the treatment of prisoners of war (1949) (arts 20, 26, 29, 36) and Geneva Convention relative to the protection of civilian persons in time of war (1949) (arts 85, 89 and 127).
1385 CESCR general comment 15: "The right to water" E/C.12/2002/11 20 January 2003.

states further that states' "core obligations" include, among other things, ensuring "access to the minimum essential water ... for personal and domestic use," and ensuring "sufficient access to safe water facilities", and recommends that they adopt low-cost targeted water programmes to protect vulnerable groups.[1386]

The right to water therefore places an obligation on all states parties to ensure that the minimum essential level of the right is realised.[1387] State obligations are divided into immediate obligations and those, which states may realize progressively.[1388] States parties have immediate obligations to guarantee the exercise of the right to water without discrimination of any kind[1389] and the obligation to take steps[1390] to respect, to protect and to fulfill the right. Such steps must be deliberate, concrete and targeted towards the full realization of the right to water. The obligation to respect requires that states parties refrain from interfering directly or indirectly with the enjoyment of the right to water. The obligation to *protect* requires state parties to prevent individuals, groups, corporations and other third parties from interfering in any way with the enjoyment of the right to water. The obligation includes, *inter alia*, adopting the necessary and effective legislative and other measures to restrain third parties from denying equal access to adequate water, or from polluting and inequitably extracting water. States parties are obliged to fulfill (provide) the right when individuals or a group are unable, for reasons beyond their control, to realize that right themselves by the means at their disposal.[1391]

The African Charter does not have a direct provision on the right to water but this right is inferred under Article 4, which states that "this treaty confirms that every human being shall be entitled to respect for his life and the integrity of his family."[1392] Also, the African Charter on the Right of the Child confirms that every child has the right to enjoy the

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1386 See CESCR general comment 15 paragraphs 1 and 37.
1387 WHO (2003) "The right to water" 9.
1388 Shelton (2010) 273.
1389 See Art 2(2) of the ICESCR.
1390 See Art 2(1) of the ICESCR.
1391 Shelton (2010) 274.
1392 Art 4.

highest attainable state of physical, mental, and spiritual health. It defines state obligation as pursuing the full realisation of this right, including taking measures to ensure the provision of adequate nutrition and safe drinking water.[1393]

The African Commission has also invoked the right to as protected under Article 16 of the African Charter. In Communications 25/89, 47/90, 56/91 and 100/93[1394] the African Commission on Human and Peoples Rights held that failure by the government to provide basic services such as safe drinking water, electricity and medicine constituted a violation of the right to health.[1395] Article 16 of the Charter provides that:-

> Every individual shall have the right to enjoy the best attainable state of physical and mental health, and that States Parties should take the necessary measures to protect the health of their people.

Thus, although the right to water is not directly provided for, it is obvious from the above normative description that African states need to meet their internationally binding obligations of providing water to their citizens. This will be difficult because, even in the absence of climate change, present population trends and patterns of water use indicate that more African countries will exceed the limits of their economically usable land-based water resources before 2025.[1396]

Detailed assessments in northern Africa, for example, indicate that if the temperature increases by 1 to 4 degree Celsius because of climate change, the Ouergha watershed in Morocco is likely to undergo negative changes for the period 2000 — 2020. The IPCC also projects severe water stress in southern Africa, the east-west band separating Senegal from Sudan, and the dry Sahara of West Central Africa. The Okavango River is

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1393 Art 14 of the African Charter on the Right and Welfare of the Child of 1990.

1394 The then Zaire (Democratic Republic of Congo DRC).

1395 Article 16 of the African Charter on Human and Peoples' Rights (AHG/207(XXXII), Annex VIII: 8)

1396 Parry *et al* (2007) "Climate change" 467.

also projected to be negatively impacted by climate change.[1397] Generally, the scientific evidence from the IPCC indicates that protecting and promoting the right to water as provided for under international human rights law is going to be severely affected by the impacts of climate change in Africa.[1398]

6.4.1.1.4 The right to health

The Committee on Economic, Social and Cultural Rights issued General Comment No. 14, entitled "Substantive Issues Arising in the Implementation of the International Covenant on Economic, Social and Cultural Rights"[1399] on 8 November 2000, which states in paragraph 4 that "the right to health embraces a wide range of socio - economic factors that promote conditions in which people can lead a healthy life, and extends to the underlying determinants of health, such as ... a healthy environment". General Comment No. 14 adds that "[a]ny person or group victim of a violation of the right to health should have access to effective judicial or other appropriate remedies at both national and international levels" and should be entitled to adequate reparation.[1400]

Also there are a number of other provisions in various international human rights instruments which provide for the right to health. Article 25 of the UDHR states that, "everyone has the right to a standard of living adequate for the health and well-being of himself and his family." Article 12(a) of the ICESCR recognises the right of everyone to "the enjoyment of the highest standard of physical and mental health". Article 24 thereof stipulates that state parties must ensure that every child enjoys the "highest attainable standard of health". It stipulates that every child has the right to facilities for the treatment of illness and the rehabilitation of health.

1397 United Nations Development Programme (UNDP) "Adapting to the inevitable: National action and international cooperation" (November 2007) 186. Available at: http://hdr.undp.org/en/reports/global/hdr2007-2008/chapters/ (accessed on 12 May 2012).

1398 Meinhard D "Climate change and human rights: The role of the international human rights in motivating states to take climate change seriously" (2004) 1(2) *Macquarie Journal of International and Comparative Environmental Law* 179-221.

1399 Article 12 of the ICESCR.

1400 General comment No.14 2000: Para 59.

Climate change poses huge risks to the enjoyment of the right to health in Africa. For instance, a prolonged period of abnormally hot weather raises the mortality, especially in elderly people.[1401] The IPCC predicts that the previously malaria-free highland areas in Ethiopia, Kenya, Rwanda and Burundi could experience modest incursions of malaria by 2050.[1402] Similar cases are projected to happen in central Somalia and the Angolan highlands.[1403] Other natural catastrophes such as extreme floods, severe droughts and violent storms would precipitate a variety of health impacts, ranging from physical injury, morbidity and mortality through to potentially permanent effects on mental health.[1404]

African countries are having difficulty in protecting the right to health, malaria and HIV/AIDS already being the greatest health challenges to sub-Saharan Africa. The World Health Organisation (the WHO) World Malaria report indicates that there were 247 million malaria cases recorded all over the world, 86 per cent of which were in Africa.[1405] It further reports that there were 881000 deaths reported world-wide as a result of malaria, 90 per cent of which were in Africa. This shows clearly that climate change constrains the capacity of African countries to deliver the right to health to their citizens. International human rights law does not stipulate how the right to health should be realised by individual states, but the Committee on Economic, Social and Cultural Rights prescribes that individual countries should, at a minimum, adopt national strategies based on human rights principles, which define the objectives of those strategies, to ensure that all enjoy the right to health.

1401 Hulme M *et al* "Climate change scenarios for the United Kingdom" 2002*Tyndall Centre for Climate Change Research.*

1402 Parry *et al* (2007) "Climate change" 460.

1403 Parry *et al* (2007) "Climate change" 448.

1404 Barrett and Jaichand (2007) *South African Journal on Human Rights* 544.

1405 Bhattacharya S "Global warming kills 160, 000 a year" 1 October 2003 New *Scientist* and the information available at http://www.who.int/malaria/wmr2008/MAL2008.chap3-pdf (accessed on 20 May 2012).

6.4.2 The Banjul Charter of 1981

Relevant for this discussion is Article 24 of the African Charter, which provides that "all peoples have the right to a satisfactory environment favourable to their development". The right to a satisfactory environment is of great importance as it acknowledges the importance of a satisfactory environment to Africa's socio-economic development.[1406] This is evidenced by the fact that the right aims to promote an environment of such quality that is favourable to the development of the African people. The enforcement of this right could be vital to addressing climate change challenges in Africa because the effects of climate change impede socio-economic development. Climate change is already preventing the realisation of the right to a satisfactory environment favourable to development in Africa. The IPCC report predicts with high confidence that projected trends of global warming will increase the number of people dying from hunger, floods and droughts.[1407]

However the formulation of the right "to a satisfactory environment favourable to development" has been criticized as being vague and open to contradictory interpretations, especially of terms such as "satisfactory" and "environment".[1408] The charter does not give an indication of what the phrase means or to the range of issues that it might embrace. This has led to the formation of different opinions as to the exact meaning and substantive content of the right.[1409]

It can be argued that the term "environment" refers to the natural environment, comprising living things (biodiversity and ecosystem), and also to the non-living or man-

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1406 See *Joseph Kessy et al Vs. Dar es Salaam City Council* Civil Case No. 299 of 1988, High Court at Dar es Salaam Tanzania. In this case the court linked the right to a healthy environment to the right to life under the constitution. See also section 4 of the Tanzania framework Environmental Management Act No 20 of 2004.

1407 See IPCC "Climate change' (2007) Impacts, adaptation and vulnerability" 82 and Knox JH "Climate change and human rights law" 2009 *Virgnia Journal of International Law Association* 164.

1408 Linde M "African responses to environmental protection" 2003 *CILSA* 101 and Amechi (2010) 6/2 *LEADJ* 63.

1409 Ouguergouz (1999) 364. See also Boyle A "The role of international human rights law in the protection of the environment" in Boyle and Anderson (eds) *Human rights approaches to environmental protection* (1998) Oxford University Press UK

made component of the natural world. Other scholars submit that the term encompasses physical surroundings that are common to all of us, including air, space, water, land, plants and life.[1410] If this expansive definition is employed, the provisions of article 24 of the charter will provide relief not only for persons whose access to streams, rivers, land and clean air has been impeded by environmental degradation, but also to those whose enjoyment of access to their homes, other buildings, shrines, sacred graves and other cultural monuments has been impeded.[1411]

The term "satisfactory" is also ambiguous, as it could mean clean, adequate, reasonable, acceptable, suitable, pollution free or pleasing when qualifying the right to an environment, as used in the charter. The ambiguity may make the interpretation of the right by the court, environmentalists or human rights scholars difficult.[1412]

Linde argues that the general provision of article 24 of the charter could contribute positively to clarity in that it allows for a wide and more flexible interpretation.[1413] Thus, while a state must refrain from actions impacting negatively on the right to a satisfactory environment, it is also under the obligation to ensure that positive action is taken to promote, protect and fulfil this right.

Another relevant point to make is that the charter links the right to a satisfactory environment to the issue of development.[1414] However, the link is not simple. Maluwa argues that the relationship between the environment and development is controversial in that it is both causative and corrective.[1415] It is causative in the sense that

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1410 Kidd M *Environmental law: A South African guide* 2nd ed (Juta Durban 2005) 1; Ball S and Bell S *Environmental law* (Blackstone Ltd Durban 1991) 2; Sheila B and Osborn Osborns concise law dictionary (Sweet and Maxwell 1983) 197 and Pallangyo DM "Environmental law in Tanzania: How far have we gone?" 2007 3/1 *Law, Environment and Development Journal* 30.

1411 See Amechi (2010) 6/2 *LEADJ* 122.

1412 See Linde (2003) *CILSA* 101.

1413 Linde (2003) *CILSA* 106.

1414 Arts 21 and 22 of the Banjul Charter of 1981.

1415 Maluwa T "Environment and development in Africa in the 1990s: Some legal issues"1999 *International law in post colonial Africa* 307.

environmental degradation is often caused by factors relating to development itself. On the other hand, measures employed to remedy environmental degradation are often related to development processes. It follows that the link that the charter makes between the right to satisfactory and socio-economic development is not simple in the climate change perspective because the impacts of climate change on human rights are causal as well as reinforcing of other already existing problems for Africa.[1416] Thus the right to a satisfactory environment runs the risk of being negatively balanced by the right to development.[1417] Although the charter does not define the term "development", it appears that it envisages socio-economic development. This is because of the philosophy underlying the entire charter, which is, to address the real needs of Africa, of which economic under-development was taken to be one. The obvious African reality currently is how to pursue sustainable development.

The foregoing statement illustrates the position of the Commission on the issue of the implementation of the right to a satisfactory environment favourable to development. The violated rights in the *SERAC* case are development-related rights and the interpretation by the Commission may balance economic development interests with environmental protection in order to attain sustainable development. The link between environmental rights and socio-economic development is relevant to the achievement of sustainable development, but in order for the link to have at least a theoretical value, one must recognise the link between sustainable development and climate change. The realisation of the link requires climate change issues to be addressed; otherwise it will be both theoretically and practically impossible for the sustainable development to be achieved. Thus, regardless of the lack of clarity on the substance of this right, the inclusion of the right is a progressive step and a potentially powerful mechanism for addressing the link between socio-economic development and climate change in Africa.

1416 Mwebaza (2010) "Climate change and the international human rights frameworks in Africa" 229.

1417 Duraiappah AK "Poverty and environmental degradation: A review and analysis to the nexus" 1998 *World Development* vol. 26 no. 12 2169-2179.

6.4.2.1 The African Human Rights Commission's interpretation

The African Commission's interpretation of Article 24 of the charter in the case of *Africa, social and economic rights action center (SERAC) and another v Nigeria* (referred to as the *SERAC* case)[1418] is more illustrative.[1419]
In this case two NGOs brought a complaint on behalf of the Niger People of Nigeria, in whose area Nigeria exploits its vast oil resources. The case sought to achieve the redress of human rights abuses caused by environmental degradation. The Communication that concluded the case alleged that the state's actions constituted violations of Articles 2 (non- discrimination), 4 (the right to life), 14 (the right to property), 16 (the right to health), 18(1) (the right to a family life), 21 (the right to the free disposal of wealth and natural resources), and 24 (the right to asatisfactory environment favourable to development) of the African Charter.

While acknowledging the right of the Nigerian state to produce oil, the Commission stated that Nigeria failed to discharge its duty of ensuring sustainable development and the protection of the environment and human rights of the local inhabitants. Thus, the Commission's view on the right to a satisfactory environment is that it enjoins states to provide sustainable development and forbids measures, actions or activities that may threaten the life and sustenance of people.

The Commission held, *inter alia*, that articles 16 and 24 of the Charter recognise the importance of a clean and safe environment, and are closely linked to economic and social rights in so far as the quality of the environment affects the quality of life and the safety of individuals. Further, the Commission found that the Niger Delta environment suffers from degradation as a result of oil pollution and held that an environment

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1418 See *Social and Economic Rights Action Center (SERAC) and another v Nigeria* (2001) AHRLR 60 (ACHPR 2001).

1419 The African Commission on Human and Peoples' Rights (African Commission) is charged with the protection and promotion of human and peoples' rights laid down in the Banjul Charter of 1981. See Art 45(1) of the African Charter of 1981.

degraded by pollution and defaced by the destruction of all beauty and variety is as contrary to satisfactory living conditions and development as the breakdown of ecologic equilibrium is harmful to physical and moral health. It is interesting to note that the Commission acknowledged the right of the Nigerian State to develop, but pointed out that the care that should have been taken by the government was to ensure that the development was sustainable.

The Commission gave specific meaning and application of the right to a general satisfactory environment as follows:

> The right to a general satisfactory environment, as guaranteed under article 24 of the African Charter or the right to a healthy environment, as it is widely known...imposes clear obligations upon a government. It requires the state to take reasonable and other measures to prevent pollution and ecological degradation, to promote conservation, and to secure an ecologically sustainable development and use of natural resources.

Thus, in this case the African Commission on Human and Peoples' Rights fleshed out the negative and positive obligations imposed on states by article 24 of the African Charter on Human and Peoples' Rights, 1981. The Commission took cognisance of the interface between environmental degradation and the enjoyment of human rights and ruled that governments have a duty to protect their citizens, not only through appropriate legislation and effective enforcement, but also by protecting them from damaging acts that may be perpetuated by private parties.[1420]

However, the Commission's decision has faced a number of criticisms. First, the Commission made a purposive interpretation of the Charter *inter alia* by recognizing collective or group rights and the right to development,[1421] but it failed to make a

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1420 See *Commission Nationale des Droits de L'Homme et des Libertes v Chad* (2000)AHRLR 66 (ACHPR 1995) cited in Heyns C and Killander M eds *Compendium of key human rights documents of the African Union* 4th edition (Pretoria University law Press: Pretoria 2010) 334-338.

1421 See Odinkalu C "The African commission on human and peoples' rights: The development of its non-state communication procedures" 1998 *Human Rights Quarterly* vol 20 235-280.

categorical pronouncement on the right to development.[1422] Despite the express provision in the Charter[1423] for the right to development and the clear contravention of that provision in the *SERAC case*, with reference to the violation of the right to food the Commission made no specific finding in relation to the right to development under Article 22. Thus, an opportunity for pronouncing on that right and how it could be operationalised in Africa was lost.[1424] Perhaps this could be attributed to the authors of the Communication, who did not allege a violation of this right, leaving the Commission to deal only with those allegations before it. A categorical finding of a violation of the right to development by the Commission would have better served the advancement of the right to development, to which Africa is committed, and would have provided a precedent for other adjudicatory bodies from which to draw inspiration.[1425]

The second weakness of the decision is its silence on the desirability of holding transnational corporations accountable for human rights violations. Violations of economic, social and cultural rights can occur through the direct action of states or other entities insufficiently regulated by states.[1426] This might include the failure to regulate the activities of individuals or groups to prevent them from violating the rights of others, or the failure of a state to take into account its international legal obligations regarding economic social and cultural rights when entering into agreements with other states or with international organizations.[1427]

1422 Article 22 of the Banjul Charter.

1423 Art 22.

1424 The comment of the Committee on Economic, Social and Cultural Rights is that the Declaration on the Right to Development was not designed to be operational but to be a statement of broad principles. However, a distinction needs to be drawn because whereas the Comment refers to a Declaration, which is non-binding, the African Charter is a treaty, which expressly recognizes the right.

1425 Nwobike (2005) *African Journal of Legal Studies* 142 and Ebeku (2003) *African Human Rights Law Journal* 164.

1426 Maastricht guidelines on violations of economic, social and cultural rights January 22-26 1997 paragraph 14.

1427 General Comment No. 12 paragraphs 17-20.

States' regulation of the activities of transnational corporations has been weak. The failure to regulate may result from a lack of political will on the part of a state or its officials, or perhaps even corruption. This is true of transnational corporations operating in developing countries. In some cases the violation of rights is carried out in collusion with the state. The difficulty in holding corporations accountable is that they are not party to the various international human rights treaties. The primary responsibility for human rights continues to rest with host governments.[1428] Problems arise when authorities of the host state are unwilling or unable to implement all the facets of internationally recognized human rights instruments and adopt the necessary regulations concerning the activities of transnational corporations.[1429] Where companies are jointly involved with governments in activities of police-state repression (such as detention and the torture of environmental activists, union leaders, or political opponents of government policy regarding the company), the violations by the government should in principle lead to a company's accountability, even when employees or contractors of the company are not the immediate agents of harm.[1430] A strong condemnation by the African Commission of the human rights violations carried out by Shell Petroleum Development Company in *Ogoni* land would have lent voice to the evolution of the accountability of transnational corporations for human rights violations.[1431]

Lastly, the commission lacks an enforcement mechanism. The greatest institutional weakness of the African Commission is its inability to enforce its decisions against State parties. After finding the Nigerian government to be in breach of Articles 2, 4, 16, 18(1), 21 and 24 of the African Charter, the Commission merely appealed to the government to ensure protection of the environment, health and livelihood of the Ogoni people and urged the Government to keep the Commission informed of the steps taken to redress

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1428 Eide A "Obstacles and goals to be pursued" in Eide A Krause C and Ross A (eds) *Economic, social and cultural rights: A textbook* 2nd ed (Kluwer the Hague 2001) 558.

1429 Eide (2001) "Obstacles and goals to be pursued" 559.

1430 Scott C "Multinational enterprises and emergent jurisprudence on violations of economic, social and cultural rights" in Eide A, Krause C and Ross A (eds) *Economic, social and cultural rights: A textbook* 2nd ed (Kluwer the Hague 2001) 563 - 595.

1431 Coomas (2003) *International and Comparative Law Quarterly* 9.

these violations. Ebeku calls the *SERAC* case decision "a mere moral victory" due to the fact that the Commission's decisions are merely recommendatory.[1432] This poses a huge challenge to the victims of human rights violations as the "offending state" is at liberty to choose whether to respect and implement the recommendations or not. The recommendations are also presented to the Assembly of the AU as part of the Commission's annual report to the Assembly. The Commission's report remains confidential until such time that the Assembly of the AU has authorized it.[1433] Neither the Banjul Charter nor the Commission's Rules of Procedure lay down any specific procedure for the implementation of the recommendations.[1434]

The decisions would have been binding if the African Court on Human and Peoples' Rights had delivered it.[1435] However, although the African Court on Human and Peoples' Rights became operational in 1 January 2004, it has never dealt with any human rights case involving specific environmental questions.[1436] Perhaps the reason is associated with the jurisdiction of the court to hear cases referred to it by NGOs and individuals. The Court has a mandate to render binding decisions on human rights violations against AU member states that have accepted its jurisdiction.[1437] Thus, NGOs and individuals can bring human rights cases to the court only if their respective states have made a declaration accepting the jurisdiction of the court.[1438] However, the Commission has an avenue to bring cases to the Court under article 5 of the Protocol. This provision gives the Commission *locus sta ndi*.[1439] Although the Commission has

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1432 Ebeku (2003) *African Human Rights Law Journal* 164.

1433 See art 53 of the Banjul Charter of 1981.

1434 Hansungule M 'African courts and the African commission on human and peoles rights' in Bosl A and Diescho J (eds) *Human rights in Africa: Legal perspectives on their protection and promotion* (Konrad Adenauer Stiftung 2009) 233.

1435 This court was established by the protocol to the 1981 African charter on human and peoples' rights on the establishment of the African court on human and peoples' rights of 1998.

1436 Beyerlin and Marauhn *International environmental law* (2011) 395.

1437 Arts 5 and 34(6) of the protocol to the African charter on human and peoples' rights establishing the African court on human and peoples' rights of 1998.

1438 Only 25 AU member states have ratified the protocol but only 4 countries have made declaration accepting the jurisdiction of the court. These are Tanzania, Mali, Burkina Faso and Malawi.

1439 Art 5(1)a.

never used this opportunity, it could be an alternative route to bringing human rights cases to the Court for NGOs or individuals from AU member states that have not fully accepted the jurisdiction of the court. The NGOs and individuals could bring cases to the Commission and request the Commission to refer them to the Court.[1440]

The second decision of the Commission that is relevant to the interpretation of the right to a satisfactory environment under Article 24 is the *Endorois*[1441] case. In this case the commission interpreted the right to development and made a clear link between this right and the right to a satisfactory environment.[1442] This case serves as a good example of a human rights context that can have environmental applications such as the right to development under article 22 of the Charter.[1443]

Article 22 provides as follows:

1. All peoples shall have the right to their economic, social and cultural development with due regard to their freedom and identity and in the equal enjoyment of the common heritage of mankind.
2. States shall have the duty, individually or collectively, to ensure the exercise of the right to development.

1440 The African Court of Human and Peoples' Rights has been merged with the African Court of Justice to become the African Court of Justice and Human Rights, but the Protocol on the Statute on the African Court of Justice and Human Rights has not yet come into force because of non-ratification.

1441 Communication 276/2003 African commission on human and peoples' rights 2010 http://www.minorityrights.org/0587/press.release/landmark-%decision-rules- kenyas-removal-of-peopefromancenstral-land-illegal-html (accessed on 5 May 2012).

1442 As Judge Weeramantry made it clear that development is restricted by environmental considerations, in the same way the right to development under Art 22 of the charter is restricted by the right to a satisfactory environment under Art 24. See *Gabcikovo-Nagymaros* project (*Hungary v Slovakia*) (separate opinion of vice-president Weeramantry) (1997) ICJ Rep. 7.

1443 Boyle A. "Human rights or environmental rights? A reassessment paper," A paper presented at Fordham University law school on 2 March 2007 London 1.

The complainants stated that the *Endorois* are a community of approximately 60000 people[1444] who for centuries had lived in the lake Bogoria area. They claimed that prior to the dispossession of Endorois land through the creation of the lake Hannington Game Reserve in 1973 and a subsequent re-gazetting of the Lake Bogoria Game Reserve in 1978 by the government of Kenya, the *Endorois* had established, and, for centuries, practised a sustainable way of life which was inextricable linked to their ancestral land. The complainants alleged that since 1978 the *Endorois* had been denied access to their land.[1445]

The *Endorois* people claimed that since their dispossession they had not been able to access their land, and hence their rights to property and religion, their rights to development, and their rights to freely dispose of their natural resources had been deprived. They sought for a declaration that the Republic of Kenya was in violation of Articles 1, 8, 14, 17, 21 and 22 of the African Charter on Human and Peoples Rights.[1446]. Thus, the Commission dealt with the violation of the right to property,[1447] to culture,[1448] to natural resources[1449] and the right to development.[1450] This work focuses on the right to development because of its relationship with article 24 of the Charter.

The Commission admitted that many African communities had not been accommodated by dominating development paradigms and in many cases they were being victimized by mainstream development policies and thinking, and their basic human rights violated.[1451] It found that the mining activities taking place in the land in question violated the *Endorois* peoples' right to access their lands for their survival and livelihood.

1444 The Endorois have sometimes been classified as a sub-tribe of the Tugen tribe of the Kalenjin group. Under the 199 census, the Endorois were counted as part of the Kalenjin group, made up of the Nandi, Kipsigis, Keiro, Tugen and Marakwet among others.

1445 Hyns and Killander (eds) (2010) 234.

1446 Mbazzira C "The constitutional and legislative protection of indigenous peoples" Country Report of the Research Project by the ILO available at www.chr.up.ac.za/indiaenous (accessed on 10 May 2012).

1447 Art 14 of the Banjul Charter of 1981.

1448 Art 17.

1449 Art 21.

1450 Art 22.

1451 Hyns and Killander (eds) (2010) 235.

It was held that the *Endorois* had not benefited from the tourism and mineral activities taking place on the land.[1452] The commission also found the Kenyan government to be in breach of the right to development.[1453] The *Endorois* did not have the freedom of choice to remain on their ancestral land, and this contradicted the guarantee in the charter on the right to development.[1454] The commission interpreted this right as both a procedural and a substantive right. Procedurally, indigenous people had to be consulted.[1455] In this case the Kenyan government failed to obtain prior informed consent from the *Endorois* people before designating their land as a game reserve.[1456] Substantively, the commission interpreted the right to development broadly as including the right to social and cultural development.[1457] The community had been prevented from pursuing development on their own terms and and in accordance with their own vision.

The substantive and procedural articulation of the rights in the *Endorois* case is therefore to be understood in relation to the distinctive nature of the protection afforded by the charter.[1458] The Commission found violations of the right to development based on the lack of effective participation of the Endorois in the decision-making process that gave rise to their eviction and on the fact that they did not benefit from the projects carried out in their ancestral lands.[1459] Thus, a government must obtain a community's free, prior and informed consent before taking an action that could be thought to impinge on their rights.[1460] The commission resolved further that it is a violation of the

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1452 Para 283.
1453 Article 21 of the Banjul Charter.
1454 Article 22 of the Banjul Charter
1455 The UN declaration on the right to development A/RES/41/128 art 2(3).
1456 Para 281.
1457 Hyns and Killander (eds) (2010) 236.
1458 Pentassugulia G "Indigenous groups and the developing jurisprudence of the African commission on human and peoples' rights: Some reflections" 2010 3 *UCL Human Rights Review* 158.
1459 Para 297-298.
1460 Para 291.

right to development if peoples' well-being decreases because of a development project without their being offered reasonable and equitable compensation.[1461]

The Commission should be hailed for this new jurisprudence in the African human rights Law. The right to development is a definitive individual and collective right.[1462] The right is internationally recognised through the 1986 UN Declaration on the Right to Development.[1463] This declaration is the only international instrument that recognises the right directly. It defines what the right entails and assures the collective and individual achievement of the right. It also places the prerogative of equal development on both individuals and states.[1464] The declaration stipulates that individuals are both the subjects of and participants in their own development, and that individuals should not take passive roles but actively seek to better their situations in cooperation with the states and the international community.[1465] However, the Committee on Economic, Social and Cultural Rights' comment on the status of the declaration is that it was not designed to be operational but to be a statement of broad principles.[1466]

Unlike the UN Declaration on the Right to Development, the African Banjul Charter expressly recognises the right to development.[1467] The African Union has gone a step further than the United Nations General Assembly regarding the right to development, and states parties are bound by the Charter to protect, promote and fulfill the right to development under article 22. The Commission, in the Endorois case, is seen to have made a very progressive step towards realising the right to development, which is linked

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1461 Para 291.

1462 Kamga SAD "The right to development in the African human rights system" 2011 23 *De Jure Law Journal* 381-391.

1463 UNGA Resolution 1986 A/RES/41.

1464 Moeckli D *International human rights law* (Cambridge University Press 2010) 177.

1465 Art 2(1).

1466 Comment adopted by the committee on economic, social and cultural rights in May 15 1998. See also Orford A "Globalisation and the right to development" in Alston P (ed) *Peoples rights* (Oxford University Press 2001) 172.

1467 Art 22.

with the right to a satisfactory environment favourable to development under article 24.[1468]

However, the relationship between development and the environment is at times contentious, particularly in relation to climate change.[1469] The first good example is the greenhouse effect, which is caused by the excessive emission of carbon dioxide and the process of deforestation.[1470] Greenhouse effects pose a serious threat to the sustainability of human life, now and in the future.[1471] Second, sustainable development is threatened by the process of deforestation, which contributes to global warming by increasing carbon emissions and decreasing the earth's carbon-absorbing capacity.[1472] Third, the huge amounts of harmful chemicals emitted into the air are detrimental to human health and to sustainability.[1473] The examples cited above indicate that the right to development needs to be balanced with environmental considerations in order that development should be feasible (sustainable development). Article 24 of the African Charter on Human and Peoples' Rights serves as a guideline to undertaking development that considers environmental interests. The Article requires states parties to create an environment conducive to peoples' development.[1474]

The decision in the *Endorois* case on the right to development indicates the willingness of the African Human Rights Commission and the AU to uphold the African Banjul Charter. It reaffirms the justiciability of collective rights such as the right to development and to a clean and healthy environment. However, the challenges remain about the

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1468 Linde M and Louw L "Considering the interpretation and implementation of article 24 of the African charter on human and peoples' rights in light of the *SERAC* communication" 2003 3 *African Human Rights Law Journal* 179.

1469 Hague MS "Environmental discourse and sustainable development: Linkages and limitations" 2000 5(1) *Ethics and the Environment* 5.

1470 Hague (2000) *Ethics and the Environment* 6.

1471 See Chapter TWO of this work.

1472 Hague (2000) *Ethics and the Environment* 7.

1473 Redclift M *Sustainable development: Exploring the contradictions* (Methuen London 1987), 119.

1474 Du Plssis AA "The balance of sustainability interests from the perspective of the African Charter on Human and Peoples Rights" in Faure M and Du Plissis W (eds) *The balancing of interests in environmental law in Africa* (Pretoria University Law Press 2011) 39.

capacity of the AU to make a difference, due to the lack of political will on the part of member states to implement human rights standards in their domestic laws as well as a lack of resources to implement the policy, and the non-binding nature of the Commission's recommendations.[1475]

6.5 Concluding remarks

This chapter has discussed how international human rights law applies to climate change. It is found that the effects of climate change will have potential implications for the enjoyment of human rights either directly or indirectly. International human rights law is an important framework to address climate change consequences in Africa. This is because the African Banjul Charter contains progressive provisions such as the right of peoples to a satisfactory environment favourable to their development,[1476] and the right to development.[1477]

In assessing how human rights law could be useful in curbing climate change effects, two dimensions were discussed: a duty for states to cooperate, and the extraterritorial application of human rights. It is found that the extraterritorial dimension is unclear.[1478] The extraterritorial dimension of human rights obligations in the context of climate change needs to be clarified. However, the extraterritorial dimension of human rights presents a great opportunity for Africa to address the consequences of climate change. The Banjul Charter does not contain a jurisdictional clause and it includes various provisions on international cooperation. Thus, the Charter could present an avenue to AU institutions such as the Human Rights Commission and the African Human Rights Court to apply the rights in the Charter extraterritorially. Second, the AU could use the Charter in this context to foster the cooperation of states to formulate and defend

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1475 Kamga (2011) *De Jure Law Journal* 389.
1476 Art 24.
1477 Ar 22.
1478 Shelton (2009) *Buffet Center of International and Comparative Studies* 17.

common positions on climate change and formulate regional and sub-regional climate change policies and programmes.

CHAPTER 7: CONCLUSION AND RECOMMENDATIONS

Contents of this chapter

7.1 Conclusion 301
7.2 Recommendations 302
7.2.1 General recommendations 302
7.2.1.1 The international climate change regime 302
7.2.1.2 African regional integration 306
7.2.1.3 The human rights approach to climate change 310
7.2.2 Specific recommendations 312

7.1 Conclusion

This thesis discussed the International and African regional normative framework (the AU's and the RECs') in relation to climate change with a view to determining how conducive the frameworks are to addressing the consequences of climate change in Africa. It accordingly discussed the effects of climate change on Africa in Chapter TWO in order to show the magnitude of the problem in the region. Chapter Three presented a discussion on the international climate change regime and Africa, arguing that the regime should invoke CBDRRC,[1479] and special situation/vulnerability principles[1480] to increase assistance for Africa. Chapter Four dealt with regionalism and African regional integration, alluding to the possibility that strong African regional integration could be an avenue for the AU to foster the cooperation of member states in formulating common positions on climate change and invoking the AU's and the RECs' normative frameworks relating to climate change. It is observed that regional integration could foster the pursuit of sustainable development in Africa. Thus, since it is evident that climate change will hamper sustainable development in Africa; regional integration should focus on this issue.

Chapter Five discussed the AU's and a few[1481] RECs' normative frameworks. It was found that their frameworks on environmental protection exist but do not address climate change adequately. The frameworks also lack effective means of implementation.

The international human rights framework was discussed in Chapter Six. It was found that international human rights law is a viable framework that can be used to address climate change in Africa. This is due to the fact that the Banjul Charter does not have a jurisdictional clause and the extraterritorial application of the Charter may therefore be possible. Moreover, the Charter contains progressive solidarity rights such as the right

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1479 Art 3(1) of the UNFCCC of 1992.
1480 Art 3(2) of the UNFCCC of 1992.
1481 SADC, ECOWAS and EAC.

of peoples to development[1482] and to a satisfactory environment favourable to their development.[1483] Thus, the Banjul Charter presents an opportunity for the AU to address climate change consequences through the invocation of extraterritorial application of the Banjul Charter and a duty of states to cooperate. It is found that the extraterritorial application of human rights law may apply only at the regional level (in Africa) because the International human rights framework appears to have a jurisdictional clause that may be a hindering factor.[1484] However, the duty of international cooperation under the international human rights framework may require non-UNFCCC-Kyoto Protocol parties such as the USA and Canada (which are major emitters) to reduce their emissions of GHG and assist Africa under the CBDRRC and special situation/vulnerability principles.

7.2 Recommendations

Each of the previous chapters has discussed challenges faced by Africa because of the consequences of climate change and the role of both the international and African regional normative frameworks in responding to climate change. In the course of the discussion a number of recommendations were made. Those recommendations will not be repeated in this part. However,, general and specific recommendations are made here, based on the findings of this study. This chapter discusses at length the way forward for the AU in terms of the challenges that face the continent regarding how to address climate change.

7.2.1 General recommendations

7.2.1.1 The international climate change regime

1482 Art 22.
1483 Art 24.
1484 Knox (2009) *Virginia Journal of International Law* 218.

As discussed in this study,[1485] the objective of the International climate change regime and any related legal instrument is to achieve a stabilisation of greenhouse gas concentrations in the atmosphere at a level that prevents dangerous climate change.[1486] Achieving the said objective requires the strong cooperation of states in striving to address the problem. Even if the states' commitments under the UNFCCC are differentiated,[1487] that differentiation should be based on the CBDRRC[1488] and the special situation/vulnerability principles that apply to the most vulnerable developing countries.

This study recommends that to strengthen the international climate change legal regime, future legal agreements should not treat all developing countries alike.[1489] This would encourage the US and other developed countries disinclined to engage constructively with the climate change regime based on the CBDRRC principle to change their minds.[1490] Although, as shown in Chapter Three, the CBDR principle is contentious,[1491] it is nonetheless a central element of the conceptual apparatus of the international climate change regime. The re-categorisation of developing and developed countries is favoured by developed countries for its flexibility, and because it is capable of evolving, permitting differences within and between developed and developing countries.[1492] The re-categorisation could resolve the controversy facing the UNFCCC negotiations regarding the role of developing countries with economies in transition in taking up legal obligations as well. Special attention could be given to vulnerable countries, including those in Africa, by requiring both developed countries and countries

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1485 See Chapter Three of this work.

1486 Art 2 of the UNFCCC.

1487 Ramajani (2012) *International Affairs* 615; Ramajani (2008) *International and Comparative Law Quarterly* 922 and Ong (2010) "International legal efforts to address human-induced global climate change" 459.

1488 CBDRRC is an acronym for the common but differentiated responsibilities and respective capabilities.

1489 Pauwelyn (2013) *Review of the European Community and International Environmental Law* 41.

1490 Ramajani (2008) 57 *International and Comparative Law Quarterly* 923.

1491 See Stone S "Common but differentiated responsibilities in international law" (2004) 98 *American Journal of International Law* 276.

1492 Ramajani (2008) 57 *International and Comparative Law Quarterly* 924.

with economies in transition to jointly assist them to adapt to the consequences of climate change. The basis for giving special attention to Africa under the vulnerability principle should be the interpretation of article 3(2) of the UNFCCC.[1493] This Article refers to special needs and circumstances, especially of the most vulnerable, and parties that are likely to be affected by climate change in a disproportionate manner.[1494] Interpreting and invoking the vulnerability principle will enable funding for adaptation to be prioritised for the most vulnerable developing countries of Africa. Africa could make use of this principle in defending its common positions during UNFCCC negotiations.

Moreover, technology transfer and funding requirements under the regime are essential provisions for Africa.[1495] A key concern for most African states is the availability of financial assistance and technology to facilitate climate change adaptation and other measures. However, the use of more advanced technologies that have a more responsible approach towards the environment is as yet extremely limited in many countries, especially developing ones. Africa in particular does not have the resources, technical or financial, to access these advanced technologies. Africa therefore needs support from developed countries to gain access to technology development and transfer, capacity building and funding.

In the context of climate change, two main types of technology are relevant: the technologies that mitigate anthropogenic emissions of greenhouse gases (GHGs) or enhance the capture of GHGs in sinks, and adaptation technologies, which are technologies that facilitate developing countries' ability to adapt to the adverse effects of climate change. Given that Africa emits a negligible amount of greenhouse gasses, adaptation technologies that help it to adapt to the effects of climate change are most relevant in the region.

1493 Scholtz (2011) 36 *South African Yearbook of International Law* 202.
1494 Scholtz (2011) 203.
1495 See Gray and Gupta (2003) "The UN climate change regime and Africa" 72.

The implementation of the UNFCCC provisions regarding the rendering of financial assistance and technology transfer to developing countries depends on the developed countries' implementation of commitments relating to financial assistance and technology transfer.[1496] As discussed in Chapter Three of this study, COP decisions[1497] created the Green Climate Fund to try to resolve issues of financial assistance for developing countries. Regarded as the current financial mechanism of the UNFCCC, the GCF presents a great opportunity for African countries to implement green technologies which may assist them in a transition to low-carbon development paths and strengthen their adaptive capacity to the consequences of climate change. However, the GCF is very ambitious plan of action, so it is expected that there are many aspects of it that need to be worked on. One of the main issues to be addressed is to "[go] beyond general principles to ensure that finance reaches the most vulnerable countries" and regions, such as Africa. In order for Africa to fully benefit from this, it should create climate change plans the implementation of which would require funding.[1498]

The UN climate change legal regime should be strengthened in order to provide a more meaningful normative framework, within which Africa can strengthen its adaptive capacity to the impacts of climate change. This could be done in the following ways:-

First, since building a climate change legal regime is about much more than just adopting a treaty or negotiating a deal on actions to curb climate change, the regime should rest on a thoroughly-shared understanding particularly of the agreed meaning of the CBDRRC principle in order to be legitimate in the eyes of all regime participants. Developed countries have a pivotal role to play but their efforts should be paralleled by an increasingly fundamental, active role on the part of emerging economies and by fair distribution of resources and suitable mechanisms to support least developed countries.

1496 See Art 4 of the UNFCCC and Arts 3 and 4 of the Kyoto Protocol.

1497 See COPs 16, 17 and 18 of the UNFCCC.

1498 Neil B, Brown J and Schalatek L "Climate change policy brief No. 4: Design challenges for the green climate fund" 2011 *Overseas Development Institute* 5.

The involvement of emerging countries with rapidly growing emissions of GHG should be distinct from the least developed countries (most of them are found in Africa) based on the principle of the specific needs and special circumstances of vulnerable developing countries under the UNFCCC.

7.2.1.2 African regional integration

African regionalism is considered a key strategy for economic growth and development. It follows the traditional concept based on geographical proximity and contiguity of countries and political cooperation through economic cooperation. Through this avenue, African leaders adopted a climate change declaration[1499] in 2007, in which member states of the AU acknowledged Africa's vulnerability to climate change and how climate change consequences might endanger the future well-being of the population, ecosystems and socio-economic progress of Africa.[1500]

Regional integration is an essential driver of sustainable development in Africa.[1501] This is because a state's sovereign right to control its own development has been a high priority of developing countries, and they see it as a fundamental principle for achieving their aspirations of greater economic independence and a more equitable international economic order.[1502]

Therefore, African regional integration, through the AU and the African RECs, could be an avenue for African countries to achieve sustainable development. This could be done by establishing or strengthening regional and sub-regional institutional structures to implement sustainable development activities in Africa. They might include institutional structures to develop and implement poverty reduction policies, the

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1499 AU declaration on climate change and development in Africa 2007 available at http://wwwafrican-union.org (accessed in June 2011).

1500 See also IPCC *"Summary for policymakers"* IPCC Secretariat Geneva 207 8.

1501 Mutangadura (2010) *Journal of Sustainable Development in Africa* 56.

1502 Wold *et al* (2010) *Climate change and the law* 158.

enforcement of environmental impact assessment schemes for all development sectors, the development of biodiversity conservation programmes etc. However, this study observed that the major challenges to the implementation of sustainable development activities in Africa include the lack of financial, human and material resources, the lack of a supporting legal framework, poor coordination and institutional capacity, inadequate understanding of sustainable development issues, the lack of mechanisms and capacity for monitoring and evaluating progress, and difficulties in creating a balance between the three pillars[1503] of sustainable development.

Although African countries are currently excluded from all commitments to emission reduction in terms of the UN's climate change regime, Africa is regarded as one of the most vulnerable continents in terms of the adverse effects of climate change. This makes it necessary for the continent to take legal initiatives to address the matter. The AU can do this through the facilitation of strong common positions under the UNFCCC and the strengthening of the African normative framework on climate change.

As aptly argued by Scholtz,[1504] African regional integration, through the AU, has the potential to facilitate the co-operation of member states pursuant to the articulation of African interests at international environmental negotiations. The adoption of strong African positions on climate change under the UNFCCC is essential for two important reasons: to strengthen bargaining power and to facilitate the pooling of resources within the region. This would allow the states involved to capitalise upon their shared environmental resources and interconnected economies, both to elevate the importance of climate measures and to address climate change in a cost-effective manner. The AU and African RECs could assist member states to come up with plans and programmes suitable to be funded by the GCF. This could be done through the African Climate Policy Center (ACPC). If the ACPC is developed into a hub for a demand-led knowledge

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1503 The three pillars of sustainable development are considered to be environmental, social and economic development. See Mutangadura (2010) *Journal of Sustainable Development in Africa* 56 and Tlad (2007) 80.

1504 Scholtz (2010) *African Human Rights Journal 25.*

base, it could assist AU member states to address the impacts of climate change by mainstreaming climate change into their development strategies and programmes.

Secondly, the AU is supposed to ensure that regional and international environmental normative frameworks are followed and observed by RECs and member states. This could be done through adequate coordination, which the AU has the responsibility for organising for the RECs[1505] and the member states. Both the Abuja Treaty establishing the AEC and the AU Constitutive Act emphasise the importance of adequate coordination and the progressive integration of policies and the normative frameworks of RECs and member states in order to achieve a viable African integration.[1506] In a similar vein, the AU Constitutive Act also underscores the need to coordinate and harmonise the policies and laws between the existing and future RECs for gradual attainment of the objectives of the AU.[1507]

Following this approach, African regional integration could be an important complement to the existing global efforts to address climate change.[1508] However, African leaders need to recognise that economic integration cannot be successful if the coordination and harmonisation of regulatory frameworks is not done adequately. NEPAD,[1509] for example, emphasises the need for weaknesses in the coordination and harmonisation of the RECs' frameworks by the AU to be addressed in order to have a viable African regional integration.[1510] It further emphasises regional and sub-regional approaches to economic challenges, encouraging African countries to pool their resources to enhance the prospect of economic growth. Because of the regional interstate cooperative

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1505 See sections 4 and 5 of the AU Protocol on the relations between the AU and the RECs..

1506 See chapter XIX of the Abuja Treaty 1998.

1507 Art 3 of the AU Constitutive Act 2002.

1508 Furijawa and Egenhofer "Do regional integration approaches hold lessons for climate change regime formation? The case of differentiated integration in Europe" 42-129.

1509 Gottchak K and Smidt S "The African Union and the New Partnership for Development" available at http://www.fesportal.fes.de/pls/portal30/docs/FOLDER/IPG/IPG4.2004PDF (accessed on 7 July 2012).

1510 Nzewi o and Zakwe L "Democratising regional integration in Southern Africa: SADC national committees as platforms for participatory policy making" (2009) *Research Report 122 Centre for Policy Studies.*

approach, African regional integration may lead to a more feasible and efficient approach to addressing climate change than leaving the matter to individual states.[1511] The AU's proper coordination and harmonisation of RECs' policies and laws may give rise to more uniform policies and laws across Africa and may enhance the resolve of individual state policymakers to address climate change.

The Protocol on the Relations between the AU and RECs[1512] gives a leadership role concerning coordination and harmonisation to the AU. Also, the AU is empowered to sanction RECs or member states for non-compliance with its directives. However, although the AU coordination mechanism has been established under the protocol, this study observes that it has been ineffective because of a lack of human and financial capacity to implement the integration policies.[1513] This raises a serious question about whether or not the AU has the ability to manage regional integration. Other weaknesses include;

- Inadequate exchange on the progress of coordination or harmonisation of policies and programmes at the country, sub-regional and continental levels;
- Inadequate sharing of best practices of coordination, harmonisation, and specific sectors needing coordination and harmonisation;
- The lack of formally established focal points among the RECs and between the AU and the RECs;
- The lack of a monitoring mechanism incorporating milestones such as when specific activities should be undertaken, how much has been achieved, obstacles, and budget requirements; and
- The lack of institutional arrangement at the AU level.[1514]

1511 Hansolm D "Monitoring regional integration in Southern Africa" A paper presented to SSA Biennale Conference in Durban 7-9 Sept. 2005. Available at http://www.alternative-regionalisms.org/wp-content/upl (accessed on 10 July 2012).

1512 Adopted on 24 June 2004. See Assembly/AU/Doc.166 (IX): Decision on the protocol on the relations between the African Union and Regional Economic Communities Doc. Ex. CL/348/(XI).

1513 Foroutan (2000) "Regional integration in sub-Saharan Africa: Past experience and future prospects" 234-252.

1514 UN Economic Commission for Africa (2007) 97.

The AU should seek for more funding from its partners, such as the EU and other international organisations, to strengthen its institutions and facilitate the harmonisation process. Donors and/or partners should be advised to embark on short- and long-term strategies of capacity building in order to create human resources. The creation of focal points in each REC should also be carried out in order to facilitate the harmonisation process and eas communication between the AU and the RECs. [1515]

7.2.1.3 The human rights approach to climate change

Although the right to a clean environment is not directly and clearly recognised at the international level, the African Charter on Human and Peoples' Rights provides for this important human right. As evidenced in this study, the recognition of the right to a satisfactory environment favourable to development[1516] in the African Charter shows that the link between human rights and environmental degradation is recognised in Africa.[1517] Furthermore, the African Human Rights Commission's Resolution 153 recognises the link between human rights and climate change by aknowledging the implications that the consequences of climate change may have on the enjoyment of human rights in Africa.

The extraterritorial application of international human rights law under the ICCPR and ICESCR is often contested and unclear.[1518] It becomes even more difficult with regards to the extraterritorial dimensions of the human rights and environmental rights interface in relation to climate change.[1519] The UNHCR and the OHCHR should clarify states'human rights obligations in the context of climate change, especially the extraterritorial application of international human rights. The duty of states to cooperate

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1515 UN Economic Commission for Africa (2007) 96.
1516 Art 24 of the African Banjul Charter of 1981.
1517 Ebeku (2003) *African Human Rights Journal* 164.
1518 Knox (2009) *Virginia Journal of International Law* 206.
1519 Boyle (2012) *The European Journal of International Law* 635.

under international human rights[1520] could be a way to hold developed countries responsible for providing funding and transferring technology to Africa. The duty under the ICESCR and the UN Charter could provide the basis for requiring states to act as one entity with respect to the global threat posed by climate change. In this context, the international human rights framework could be an avenue to hold major emitters of GHG responsible. This applies especially to those that are not party to the current climate change regime, such as the USA and Canada.

On the other hand, the Banjul Charter does not have a jurisdictional clause implying that the Charter requires state parties to respect the rights of those outside their own territories. This presents the possibility of applying the Charter extraterritorially. The AU should use the extraterritorial application of the Human Rights Charter to control transboundary pollution. Climate change consequences are normally not limited by territorial borders, so the extraterritorial application of the Charter would be a great avenue for AU to address climate change effects such as a decreased water supply and the prevalence of groups of climate change-induced IDPs. However, the African Human Rights Commission should conduct a study to clarify the extraterritorial scope of state obligations under the Charter, particularly how it can be applied to transboundary pollution situations and the consequences of climate change.

To ensure the effective application of the Charter extraterritorially, the African Human Rights Commission should mitigate the problem pertaining to access to the African Court on Human and People's Rights by individuals and NGOs by referring the cases to the Court on their behalf. This would facilitate access to the Court by individual litigants, who are normally victims of human rights violations, and might result in their being given binding Court decisions.

1520 Cameron and Limon (2012) *Review of European Community and International Environmental Law* 211-212 and Knox (2009) *Virginia Journal of International Law* 206

7.2.2 Specific recommendations

Other specific recommendations to improve the AU's and African RECss response to climate change include:

- The AU should negotiate a Treaty on climate change. Such a Treaty would create institutions for the coordination of a climate change programme on the continent. The Treaty would also oblige states parties to prevent climate change consequences and would stipulate how parties should cooperate in order to achieve the objectives of the Treaty. The Treaty would also create a climate change fund. The fund could be established as a multi-donor special fund seeking donations from the developed countries, international organisations and non-governmental organisations that have interests in assisting Africa to address the challenges of climate change.

- The AU should establish a climate-change directorate.

- The AU should cooperate with other regional organisations such as EU.

- The AU should improve public awareness and civil society involvement via the ECOSOC.

- The AU should strengthen the cooperation of member states and RECs in formulating common positions on climate change by involving RECs in international climate change negotiations in order to counter their marginalisation.

- The AU should develop close coordination among the RECs (intra-REC relations) in order to prevent the duplication of actions.

- The AU should facilitate the formation of partnership initiatives at regional and international levels.

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