

Regulation of land-based marine pollution in South Africa and France

by

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TO WHOM IT MAY CONCERN

I hereby certify that I have edited the language of Marie Parramon's doctoral dissertation on the legal regulation of land-based marine pollution

from Professor Alan Brimer: D Litt (HPE), Professor Emeritus of UKZN.

Yours faithfully,

Alan Brimer

ABSTRACT

The South African coastal and marine environment is an essential ecologic and economic asset. Its associated services and products are substantially contributing to economic growth and sustainable development of the country. However, it is internationally and nationally recognised that land-based marine pollution (LBMP) is the most important single risk to the health and sustainability of coastal and marine waters and the associated ecosystems. The regulation of LBMP at the national level is still difficult and challenging. The issue of LBMP management has only recently been introduced in South Africa with the development of the *National Programme of Action to Protect Marine Environment from Land-based Activities*, 2008. South Africa is only starting to consider the question of LBMP regulation. This thesis aims to conduct a critical analysis of the South African regulatory framework pertaining to LBMP in comparison to international best practice and the French regulatory framework, in order to identify the key South African challenges in this regard and to make recommendations to address them.

In order to do so, this research commences by providing an analysis of LBMP and the theoretical foundations associated with LBMP regulation, as promoted by international best practice. The study identifies and assesses the main regulatory features to be considered in the development, implementation and/or assessment of a regulatory framework pertaining to LBMP. These features will form the methodological framework to conduct the comparative legal assessment between the French and South African regulatory frameworks pertaining to LBMP.

This thesis then provides a detailed and thorough legal analysis of the French and South African regulatory frameworks pertaining to LBMP using the methodological framework developed using guidance from international best practice.

Finally, based on lessons learnt from the comparative legal study, this study concludes with a set of recommendations for the South African context.

Key words: land-based marine pollution (LBMP), marine pollution, environmental law, integrated pollution prevention and control, coastal zone management, ecosystem-

based approach, water law, catchment management, resource-directed regulatory instruments, sources-directed regulatory instruments, sustainable development.

Every tree provides oxygen for 3 people to breathe. Every ton of recycled paper saves about 17 trees. Please if you need to dispose of this hard copy, recycle the paper. If you do so, I will have at least achieved one positive outcome with this LLD.

OPSOMMING

Die Suid-Afrikaanse kustelike- en mariene omgewing is 'n noodsaaklike ekologiese en ekonomiese bate. Die verwante dienste en produkte dra substansieël by tot die ekonomiese groei en volhoubare ontwikkeling van die land. Dit word egter op internasionale en nasionale vlak erken dat mariene besoedeling afkomstig vanaf die land (land-gebaseerde-mariene-besoedeling, LGMB) die belangrrikste risiko is vir die gesondheid en volhoubaarheid van kustelike en mariene waters en verwante ekosisteme. Die regulering van LGMB op 'n nasionale vlak is nogsteeds moeilik en uitdaging. Die kwessie van LGMB is eers onlangs in Suid-Afrika bekendgestel met die ontwikkeling van die *Nasionale Program van Aksie vir die Beskerming van Mariene Omgewings teen Land-Gebaseerde-Besoedeling*, 2008. Suid-Afrika begin nou eers LGMB regulasies bevraagteken. Hierdie tesis beoog om 'n kritiese analise te onderneem van die Suid-Afrikaanse regsraonwerk met betrekking op LGMB in vergelyking met internasionale mees toepaslike praktyk en die Franse wetsontwerp, om hoof Suid-Afrikaanse uitdagings te identifiseer in hierdie gebied, asook om aanbevelings te maak om hierdie uitdagings aan te pak.

Om dit te kan doen, begin dié navorsing met 'n analise van LGMB en die teoretiese grondslae wat vereenselwig is met LGMB regulasies, soos geïdentifiseer deur internasionale beste praktyk. Die studie identifiseer en evalueer die hoof voorgeskrewe eienskappe wat betrekking het op LGMB. Hierdie eienskappe sal die

metodologiese raamwerk vorm vir die vergelyking tussen Fraanse en Suid-Afrikaanse regsraamwerke aangaande LGMB bestuur.

Hierdie tesis lewer dus 'n volledige en deeglike regsanalise van die Fraanse en Suid-Afrikaanse wetsontwerp wat betrekking het op LGMB, met die gebruik van die metodologiese raamwerk wat ontwikkel is (onder leiding van internasionale beste praktyk).

Ten slotte, gebaseer op ondervinding van die alomvattende regsanalise, sluit hierdie studie af met aanbevelings vir die Suid-Afrikaanse konteks.

Steutelwoorde: land-gebaseerde-mariene-besoedeling (LGMB), mariene besoedeling, omgewingswet, geïntegreerde besoedelingsvoorkoming en –beheer, ekosisteen-gebaseerde benadering, waterwet, opvangsbestuur, hulpbron-gedrewe regsinstrumente, oorsprong-gedrewe regsinstrumente, volhoubare ontwikkeling.

Elke boom veskaf genoeg suurstof vir 3 mense om asem te haal. Elke ton van herwonne papier spaar omtrent 17 bome. As u moet ontslae raak van hierdie hardekopie, herwin asseblief die papier. As jy dit doen, sal ek ten minste een positiewe uitkoms bereik met hierdie LLD.

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LIST OF ABBREVIATIONS AND ACRONYMS

APA	Agricultural Pest Act
BATNEEC	Best Available Technology Not Entailing Excessive Cost
BAT	Best Available Technique
BEP	Best Environmental Practice
BPEO	Best Practicable Environmental Option
CARA	Conservation of Agricultural Resources Act
CSIR	Council for Scientific and Industrial Research
DEAT	Department of Environmental Affairs and Tourism
DEA	Department of Environmental Affairs
DFA	Development Framework Act
DIREN	<i>Directions Régionales De L'environnement</i>
DPE	The Department of Public Enterprises
DPW	Department of Public Works
DRAAF	<i>Direction Régionale de l'Alimentation, de l'Agriculture et de la Forêt</i>
DRASS	<i>Direction Régionale des Affaires Sanitaires et Sociales</i>
DRE	<i>Directions Régionales de L'équipement</i>
DREAL	<i>Directions Régionales de L'environnement, de L'aménagement et du Logement</i>
DRIRE	<i>Directions Régionales de L'industrie, de la Recherche et de l'environnement</i>
DST	Department of Sciences and Technology
DTI	Department of Trade and Industry
DWAF	Department of Water Affairs and Forestry
DWEA	Department of Waters and Environmental
ECA	Environment Conservation Act
ECHA	European Chemicals Agency
EEZ	Exclusive Economic Zone
EIA	Environmental Impact Assessment
EMF	Environmental Management Framework
EPA	Environmental Protection Agency
EU	European Union
FCDA	Foodstuffs, Cosmetics and Disinfections Act
FEE	Foundation for Environmental Education

FFASA	Fertilizers, Farm Feeds, Agricultural Remedies and Stock Remedies Act
GDP	Gross Domestic Product
GEF	Global Environmental Fund
GESAMP	Global Forum On Oceans, Coasts, and Islands
GMO	Genetically Modified Organism
GMOA	Genetically Modified Organism Act
GPA	Global Programme of Action
HSA	Hazardous Substances Act
IAIA	International Association for Impact Assessment
ICAM	Integrated Coastal Areas Management
ICM	Integrated Coastal Management
ICZM	Integrated Coastal Zone Management
IDP	Integrated Development Plan
IEM	Integrated Environmental Management
IFRA	Intergovernmental Relations Framework Act
IMCAM	Integrated Marine and Coastal Area Management
IPCC	Intergovernmental Panel On Climate Change
IPPC	Integrated Pollution Prevention and Control
IRBM	Integrated River Basin Management
IWMP	Integrated Waste Management Plan
LBA	Land-Based Activities
LBMP	Land-Based Marine Pollution
LBSA	Land-Based Sources and Activities
LGMSA	Local Government: Municipal Structures Act
LME	Large Marine Ecosystem
MAP	Mediterranean Action Plan
MBI	Market-Based Instrument
MCM	Marine and Coastal Management
MEDDTL	<i>Ministère de l'Écologie, du Développement Durable, du Transport Et du Logement et de la Mer</i>
MEEDDM	<i>Ministère de l'Écologie, de l'Énergie, du Développement Durable et de La Mer</i>
MLRA	Marine Living Resources Act
MRPDA	Minerals and Petroleum Resources Development Act
MSFD	Marine Strategy Framework Directive

MZA	Maritime Zones Act
NEA	Nuclear Energy Act
NEMA	National Environmental Management Act
NEM:AQA	National Environmental Management: Air Quality Act
NEM:BA	National Environmental Management: Biodiversity Act
NEM:ICMA	National Environmental Management: Integrated Coastal Management Act
NEM:PAA	National Environmental Management: Protected Areas Act
NEM:WA	National Environmental Management: Waste Act
NNRA	National Nuclear Regulatory Act
NVZ	Nitrate Vulnerable Zone
NWA	National Water Act
NWMS	National Waste Management Strategy
NWRS	National Water Resource Strategy
OECD	Organisation for Economic Cooperation and Development
PER	Potchefstroom Electronic Law Journal
PPP	Polluter Pays Principle
PRTR	Pollutant Release and Transfer Register
PRTRs	Pollutant Release and Transfer Registers
PTD	Public Trust Doctrine
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals
RIKZ	<i>Rijksinstituut Voor Kust En Zee</i>
SAGE	<i>Schéma d'aménagement et gestion de L'eau</i>
SA Public Law	South African Public Law
SAJELP	South African Journal for Environmental Law and Policy
SAP	Strategic Action Programme
SDAGE	<i>Schéma Directeur d'aménagement et Gestion de L'eau</i>
SDF	Spatial Development Framework
SEA	Strategic Environmental Assessment
SOER	State of the Environment Report
SRU	<i>Solidarité Et Renouveau Urbains</i>
SST	Sea Surface Temperature
TSAR	<i>Tydskrif Vir Suid-Afrikaanse Reg</i>
UNCLOS	United Nations Convention of the Law of the Sea
UNECE	United Nations Economic Commission for Europe

UNEP	United Nations Environmental Programme
WESSA	Wildlife and Environment Society of South Africa
WFD	Water Framework Directive
WIO	Western Indian Ocean
WWF	World Wildlife Fund

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