

Hinduism: The Double Edged Sword of Environmentalism

K Naidoo
22439854

Mini-dissertation submitted in *partial* fulfilment of the requirements for the degree *Masters in Environmental Management* at the Potchefstroom Campus of the North-West University

Supervisor: Prof IJ van de Walt

May 2014

Abstract

Title:

Hinduism: The Double-Edged Sword of Environmentalism

The purpose of the study was to draw parallels between the Hindu religious teachings and environmental sustainability. A literature review on Hindu teachings on the environment as well as the practical application thereof as experienced or practiced by religious leaders and devotees were conducted. This was similar to the study that was conducted at the Bhaktivedanta Manor Temple near Watford in England at a Janmashtami festival in 2007 (Chauhan *et al.*, 2009). The intention of the 2007 campaign was to raise spiritual self-consciousness by linking the concept of karma to environmental degradation, i.e. the concept of every action has a reaction. It also prompted the devotees to realise that there were practical steps that could be taken to alleviate the environmental crises by reducing one's ecological footprint.

Literature on similar themes and hypotheses were referenced in the mini-dissertation, exposing the double-edged sword practices of Hinduism, where some religious practices have a harmful impact on the environment, which is contradictory to the teachings themselves. A survey was conducted at the Benoni Temple in Eastern Gauteng in South Africa where there is a strong Hindu community. The study was specifically aimed at two target audiences: Hindu religious leaders and Hindu devotees. The purpose was to establish both the religious leaders' and devotees' viewpoints regarding the correlation between Hindu religious teachings and lifestyles. The outcome was synonymous that there is a need for better communication and more environmental awareness from the Hindu religious teachings.

Limitations of the study:

Bearing in mind the vastness of the topic the study has been limited to Hinduism for the Masters in Environmental Management qualification and lays the foundation for expansion of further studies. The purpose of the study was not to denounce any religion, nor is it to promote one religion over the other, but rather to evaluate objectively both the positive and negative influences Hinduism has on the environment.

Key terms:

Hinduism; environmental sustainability; dogmatic values; inherent values; environmentalism; environmental ethics

Acknowledgements

My efforts in the completion of my Master's Degree in Environmental Management is attributable to the wonderful love, support and encouragement of

- God, who blessed me with good physical and mental health during these trying years.
- My late and dearest mom. Mom, you always encouraged me to study and often said it was the only way to be sure to succeed in life. No doubt, you stood by me in spirit throughout this journey, and made the unbelievable come true – I love and miss you dearly.
- My dearest dad. You constantly showed keen interest and urged me to complete my studies, even when I thought I could not go on (you are my tower of strength). Waiting up with me at night; tolerating my moods and just that extra cup of coffee was a blessing from you.
- My beloved three sons; Lirvaan; Kammil and Kayilin. I thank you for your patience and for tolerating mummy's edginess and compromising on us not going out that often (I will make up, I promise). I love you boys more than life itself. I dedicate my mini-dissertation to the three of you; my mom and my dad.
- My supervisor, Professor Kobus van der Walt. You made me believe in myself when I faltered. Thank you for making it possible that I could attain a dream I never knew could come true. Your positive remarks spurred me on to just keep going. Once the pain is forgotten, I will definitely enrol under your supervision again.
- My boss, the Managing Director of Coatings Services, BASF, Mr Org May. With all the time constraints I faced, this would not have been possible without you. Thank you for your kind words and providing me with the resources and support in achieving my dream. Your famous words "make it happen" played a vital role in making sure "I made it happen!"
- My dear friend Melini Hariram. You supported me from the first day we sat next to each other in class until today. Thank you for your loyalty and being a shoulder to always lean on; I miss our Friday evening lectures.
- To Mr Krishna Govindasamy, the Secretary of the Eastern Region Council - Tamil Federation of Gauteng. Thank you for your insightfulness and taking the study to the next level. Your friendship; loyalty, sincerity and support is deeply appreciated.
- To the management of the School of Geo and Spatial Sciences of the North-West University, Potchefstroom Campus; the team of lecturers, especially Professor Francois Retief and library staff, thank you for bringing a new dimension into my life. I miss the interesting and eye-opening discussions we had at lectures.
- Last but not least: All my friends, old and new, who stood by me during these years and provided support in some form or the other; I love you all. Thank you.

Remarks

Please be advised that the editorial and referencing style of this mini-dissertation is done in accordance with the NWU Referencing Guide 2012, which uses the Harvard Style, and which is within the policy guidelines of the Masters in Environmental Management Degree at the School of Geo and Spatial Sciences.

Contents

Abstract	1
Acknowledgements	2
Remarks.....	3
Chapter 1: Introduction	7
1.1 Background	7
a. Buddhist Declaration.....	7
b. Christian Declaration.....	7
c. Muslim Declaration	8
d. Jewish Declaration.....	8
e. Hindu Declaration	9
f. Summary of worldviews	9
1.2 Problem Statement.....	10
1.3 Purpose of the Study	10
1.4 Hypothesis	10
1.5 Research Questions	11
1.6 Limitations of the study	11
1.7 Research Methodology	12
Chapter 2: Hinduism and the environment.....	13
2.1 Background to Hinduism.....	13
2.2 Origins of Hinduism (Age of the Vedas)	13
2.3 New Religious Ideas	14
2.4. The Path of Duty (Dharma)	14
2.5. The Path of Devotion (Bhakti).....	15
2.7 The conservation of the environment.....	16
2.8 Sacred Groves and the Bishnoi Community.....	19
2.9 Dharmic ecology	21
2.10 The Double-Edged sword	23
Chapter 3: Survey conducted at Benoni Temple.....	24
3.1 Background to survey	24
3.2 Questionnaire: The Hindu religious leaders	26
3.3 Questionnaire: The Hindu devotees.....	30

Chapter 4: Results.....	34
4.1 Hindu religious leaders' survey	34
4.1.1 Hindu religious leaders: Question one.....	35
4.1.2 Hindu religious leaders: Question two	36
4.1.3 Hindu religious leaders: Question three.....	37
4.1.4 Hindu religious leaders: Question four.....	38
4.1.5 Hindu religious leaders: Question five	39
4.1.6 Hindu religious leaders: Question six	40
4.1.7 Hindu religious leaders: Question seven	41
4.1.8 Hindu religious leaders: Question eight.....	42
4.1.9 Hindu religious leaders: Question nine	43
4.1.10 Hindu religious leaders: Question ten.....	44
4.1.11. Hindu Religious Teachings and the “Doubled Edged Sword”	44
4.2 Response rates: Hindu devotees	47
4.2.1 Hindu devotees: Question one	48
4.2.2 Hindu devotees: Question two	49
4.2.3 Hindu devotees: Question three.....	50
4.2.4 Hindu devotees: Question four.....	51
4.2.5 Hindu devotees: Question five	52
4.2.6 Hindu devotees: Question six.....	53
4.2.7 Hindu devotees: Question seven.....	54
4.2.8 Hindu devotees: Question eight	55
4.2.9 Hindu devotees: Question nine	56
4.2.10 Hindu devotees: Question ten	57
4.3 Summary on Hindu religious leader survey results	58
4.4 Summary on Hindu devotees survey results	58
Chapter 5: Discussion	60
5.1 What is the definition of Hinduism?	60
5.2 What are the Hindu teachings regarding the environment?.....	60
5.3 What is the correlation between Hindu philosophies and the environment?	60
5.4 How do the Hindu religious teachings positively influence the social; economic and ecological environment?.....	61
5.5 To what extent is the environmental sustainable link in rituals or practices clearly communicated by religious leaders to devotees?	62
5.6 What is the viewpoint of Hindu religious leaders regarding the question whether the religious teachings being clearly communicated?	62

Chapter 6: Conclusion	63
Reference list	65

Chapter 1: Introduction

1.1 Background

In 1986 the World Wide Fund for Nature celebrated its twenty-fifth anniversary by bringing the five major religions of the world together for the first time to declare their views on how each faith could assist in taking care of nature. The Christian; Hindu; Jewish; Buddhist and Islamic religious leaders appealed to their own followers to take care of nature through its religious teachings. Thereafter three other religions; Baha’i; Sikhism and Jainism also produced declarations of their own faith (WWF, 1986).The five major religious declarations will be briefly discussed.

a. Buddhist Declaration

The Venerable Lungrig Nomgayal Abbot of Gyuto Tantric University expressed his viewpoint from the Buddhism perspective on the environment. The following paragraph summarises his declaration:

Buddhism commits to the ideal of non-violence and promotes love and understanding towards the environment. According to the Venerable Lungrig Nomgayal Abbot all animals are the same as human beings, meaning that they are also sensitive to happiness and suffering; we as humans should therefore not base the survival of animals solely for the benefit of mankind. We as human beings should not consider ourselves as we did in the past as having an undeniable right to the environment but should live harmoniously with all forms of life. We should correct the imbalance in nature caused by the negligence of the past with courage and determination. He stated that such destruction of the environment is a result of ignorance; greed and disregard for the richness of all living things that is gaining great influence (WWF, 1986:3-4). He warned that if peace does not become a reality in the world and if the destruction of the environment continued there is no doubt that future generations will inherit a “dead world” (WWF, 1986:4).

The resounding words from The Venerable Lungrig Nomgayal Abbot were: “We are the generation of the awareness of a great danger. We are the ones with the responsibility and the ability to take steps of concrete action, before it is too late.” (WWF, 1986:4.)

b. Christian Declaration

Father Lanfranco Serrini expressed his viewpoint from a Christian perspective on the environment. The following paragraph summarises his declaration:

Man’s dominion must be seen as “stewardship” over all other creatures and not in the light of a license to destroy or spoil (WWF, 1986:7). By man destroying God’s creation he will place himself at risk of destroying himself. He also stated: “Work was a God-given grace to be exercised in that spirit of faith and devotion to

which every temporal consideration must be subordinate.” (WWF, 1986: 5-8.) This means that work is a gift and immediate gratification must be secondary. He proceeded to explain that the future quality of life is being destroyed by the uncontrolled use of technology for economic growth; humans use natural resources without considering replacing them; there is destruction of cultures and environments during war. He called on Christians to repudiate in the name of Christ; wars and discrimination; destruction of the environments and cultures; all exploitation of nature which are ill-founded and which risks the destruction of nature and in turn makes man the victim of degradation (WWF, 1986:5-8).

c. Muslim Declaration

Dr Abdullah Omar Nassef, Secretary General of the Muslim World League, expressed his viewpoint from a Muslim perspective on the environment. The following paragraph summarises his declaration:

The three basic concepts of Islam are also the three pillars of environmental ethics of Islam i.e. unity; trusteeship and accountability. These are the fundamental values written in the Qur’an. He quoted Muhammad, the prophet of Islam as expressing these values by saying “Whoever plants a tree and diligently looks after it until it matures and bears fruit is rewarded.”(WWF, 1986:11-12.) “If a Muslim plants a tree or sows a field and men and beasts and birds eat from it, all of it is charity on his part.” (WWF, 1986:11-12.) Again reference is made to man being a caretaker: “The world is green and beautiful and God has appointed you his stewards over it.” (WWF, 1986:11-12.)

Dr Abdullah Omar Nassef explained that, if such values were to be adopted, they would become part of our mental and physical make-up. He urged Muslims to return to these fundamental values and not only consider them in their personal religious beliefs, but to apply them to all aspects of work and life. He stated that Sharia, the Islamic law, should not only be applied to crime and punishment but should be the leading authority in environmental legislation, and that humans should judge our actions by them (WWF, 1986:12). The three pillars, he said, provide us with a world view to ask environmentally appropriate questions. It also provides ethical boundaries for the scope of work such that we do not destroy God’s creations. He said if Muslims used the same set of values in their work as they did in knowing themselves as Muslims, i.e. those who subject themselves to the will of God, then they would create a true Islamic alternative -- a caring and practical way of being, doing and knowing, to the environmentally destructive thought and action which dominate the world today” (WWF, 1986:11-12).

d. Jewish Declaration

Rabbi Arthur Hertzberg, Vice President of the World Jewish Congress, expressed his viewpoint from a Jewish perspective on the environment. The following paragraph summarises his declaration:

The Jewish faith celebrates the three seasons of nature. The Rabbi is quoted by WWF (1986:14): “He who has denied himself any of the rightful joys of this work is a sinner.” He explains that the relationship of God and Man in nature according to Judaism is seen as man being the leader and custodian of the natural world. Now that the world is in danger of being poisoned with different species being threatened of

becoming extinct, he said that Jews should take the responsibility in defending nature; even though man was given dominion he should still behave with justice and compassion (WWF, 1986:14-15). Man always has a struggle between his power in dominion and his limitations placed by his conscience. He quoted a story from the holy scriptures of the Vayikra Rabbah that was told twenty centuries ago: Two men were out on the water in a rowing boat .The one man sawed under his feet and justified the action by saying it was his space. The other man replied that they were both in the same boat, so the hole he was sawing would sink the both of them. Rabbi Arthur Hertzberg said, “We have a responsibility to life, to defend everywhere, not only against our own sins, but also against those of others. We are now all passengers, together in this same fragile and glorious world. Let us safeguard our rowboat - and let us row together.” (WWF, 1986:15.)

e. Hindu Declaration

Dr Karan Singh, the President of the Hindu ViratSamaj, expressed his viewpoint from a Hindu perspective on the environment, the following paragraph summarises his declaration:

The creation of humans was through the incarnations of life forms beginning with fish, then to amphibians; mammals and then into human kind (WWF, 1986: 8-10). This view therefore implies that man did not arrive fully formed on earth to be dominant over the other life forms but rather that humans evolved from the other life forms and is therefore linked to the universal creation. He referred to the teaching from the holy scriptures of the Yajurveda that no person should kill animals as animals are helpful to all; instead by serving them, one should attain happiness. The Jain Tirthankara Lord Mahavira had developed the Jain faith from this being the basic philosophy. According to Jainism *ahimsa* or non-violence, on no account must life be taken (WWF, 1986: 8-10). All forms of life including animals and insects must be revered. He urged that the ancient Hindu tradition needs to be nurtured in this contemporary age. If nature is destroyed it means the destruction of mankind. He elaborated by saying that nuclear weapons would be the ultimate pollutant and will destroy our planet which will not be able to support any form of life (WWF, 1986: 8-10). Centuries of exploitation of the environment has finally caught up with us and that we need to drastically change our attitude towards nature, not because it is condescending or because we will gain spiritual merit but because it is now a question of survival. He urged that we should stop the suicidal trip to destroying the planet and even at this late hour we can rediscover the ancient Hindu tradition; he quoted the ancient Hindu dictum “The Earth is our Mother and we are all her children.”(WWF, 1986:10.)

f. Summary of worldviews

The common viewpoint of the five major religions is that the earth is being poisoned due to humankind's past actions stemming from obsession with power and greed. Unless we do something about the earth and

change our attitudes, we will speed up the process and cause the destruction of mankind. All five of the religions confirm that the relationship of man, nature and God is intertwined.

Reflecting on the religious leaders' philosophies in the above chapter, the relationship between religion and the environment is clearly entwined, creating a spiritual awakening to the fact that we as humans need to play our God-given roles in being the caretakers of our environment as we were meant to be.

The question then arises: If all religious people on earth lived according to the teachings of their religions, why is the environment in such a state? This question is what triggers the essence of the research; however, the study will look exclusively at the Hindu religious perspective with all due consideration to the limitations of the study.

1.2 Problem Statement

Hinduism is believed to be one of the oldest religions of today and is deeply entwined with nature, be it mythology, devotional prayers, or symbolic display of deities. The research will critically evaluate the influence Hindu religious teachings and its proposed lifestyle has on environmental sustainability.

1.3 Purpose of the Study

The study will draw parallels between the Hindu religious teachings and environmental sustainability. If, at the end of the research, the hypothesis proves to be true that Hindu religious teachings can have a positive impact on environmental ethics and promote environmental sustainability, then opportunities as explored in Chauhan *et al.* (2009:114-125) can be emulated in South Africa.

The practical application of this study will be similar to the study that was conducted at the Bhaktivedanta Manor Temple near Watford in England at a Janmashtami festival in 2007 (Chauhan *et al.*, 2009). The intention of the campaign was to raise spiritual self-consciousness by linking the concept of karma to environmental degradation, i.e. the concept of every action has a reaction. It also prompted the devotees to realise that there were practical steps that could be taken to alleviate the environmental crises by reducing one's ecological footprint.

1.4 Hypothesis

Hindu religious teachings can positively impact environmental ethics and promote environmental sustainability (even though there are inconsistencies in Hindu religious practices that in fact cause pollution which is in conflict with the environmental values proclaimed by Hinduism).

1.5 Research Questions

- a) What is the definition of Hinduism?
- b) What are the Hindu teachings regarding the environment?
- c) What is the correlation between Hindu philosophies and the environment?
- d) How do the Hindu religious teachings influence the social, economic and physical environment?
- e) Is the environmental sustainable link in rituals or practices clearly communicated by religious leaders to devotees? (Viewpoint Hindu religious leaders).
- f) Is the environmental sustainable link in rituals or practices clearly communicated by religious leaders to devotees? (Viewpoint of devotees).
- g) If the hypothesis is true, how do we improve the communications of the association between Hinduism and the environment?

1.6 Limitations of the study

Bearing in mind the vastness of the topic the study has been limited to Hinduism for the Masters in Environmental Management qualification and lays the foundation for expansion of further studies. Approximately 80.5% of India's population follows Hinduism (US State Department's International Religious Freedom Report, 2006); therefore references will be made to parts of India with respect to history; practices and environmental impact.

The purpose of the study is not to denounce any religion, nor is it to promote one religion over the other, but rather objectively evaluate both the positive and negative impacts Hinduism has on the environment. Due to practical reasons the study will only make reference to India while interviews of leaders and devotees; temple visits and Hindu Societies will be restricted to Benoni in South Africa (hereafter SA), Gauteng, close to where the author resides. The survey on religious leaders included leaders from KwaZulu-Natal, where the SA Hindu association is physically located with members of the leadership residing here.

The total population of Hindus in South Africa is 959 000, which is 1.9% of the SA population (US State Department's International Religious Freedom Report, 2006).

At the end of the study specific recommendations based on the hypothesis shall be made and implemented where possible to provide a practical application to the above topic, which will be focused at the Benoni Temple.

1.7 Research Methodology

a) Historical References

Literature on similar themes and hypothesis will be referenced. The following questions from the research questions will be answered from a literature review.

- What is the definition of Hinduism?
- What are the Hindu teachings regarding the environment?
- What is the correlation between Hindu philosophies and the environment?
- How do the Hindu religious teachings impact on the social; economic and physical environment?

b) Qualitative Methodology

A survey was conducted in South Africa at the Benoni Temple in Eastern Gauteng where there is a strong Hindu community. The purpose is to establish both the religious leaders' and devotees' viewpoints regarding the correlation between Hindu religious teachings and lifestyles. The outcome would establish whether the teachings are effective, which will provide an opportunity to bridge the gaps and promote the teachings in a more effective manner.

The following questions will be answered through the qualitative methodology:

- Is the environmental sustainable link in rituals or practices clearly communicated by religious leaders to devotees? (Viewpoint Hindu religious leaders).
- Is the environmental sustainable link in rituals or practices clearly communicated by religious leaders to devotees? (Viewpoint devotees)
- If the hypothesis is true, how do we improve the communications of the association between Hinduism and the environment?

c) Quantitative Methodology

A web based survey will be conducted where possible; if not, personal interviews will be conducted. The questionnaire will primarily consist of multiple choice questions comprising of scales of comparison. The data will be presented in a graphic format comparing Hindu religious leaders' viewpoints with that of devotees.

Chapter 2: Hinduism and the environment

2.1 Background to Hinduism

Toynbee (1934-1961), an English historian who was renowned for putting forward a philosophy of history based on cyclical development and decline of civilisations, stated that different civilisations of the world lay different degrees of emphasis on specific lines of activities. The Indian civilisation for example has, according to him and observed by many students, has a predominantly religious outlook on life. Receptivity and all comprehensiveness are the main characteristics of Hinduism and encompass diverse faiths in its fold (Ramaswami Aiyar *et al.*, 1999).

According to Williams, (quoted by Ramaswami Aiyar *et al.*, 1999), who was noted for his work on Brahmanism and Hinduism, the strength of Hinduism lies in its adaptability to its infinite diversity of its human character and human tendencies. Hinduism has its appeal to all types of human personalities, e.g. it has a highly abstract and spiritual side for the philosopher type personality; the concrete and practical side suited for the man of the world; the aesthetic and ceremonial side suited for the imaginative and poetic persona, and the quiescent, contemplative side suited for the lover of peace and seclusion.

According to Williams (quoted by Ramaswami Aiyar *et al.*, 1999) Hindus were Spinozists more than 2000 years ago before the advent of Spinoza; Darwinians, many centuries before the advent of Darwin, and Evolutionists many centuries before the doctrine of evolution was accepted by scientists of the present age. Vijayalakshmi (1993:1) and Gadgil and Berkes (quoted by Kala & Sharma, 2010:86) support the viewpoint. Hinduism is the oldest religion in India which was not propounded by a single individual but evolved out of developments spanning several millennia as it has the unique features of all the ages through which it evolved, and its appearance has grown through adapting itself to its environment. No other civilisation, with the probable exception of China, has been as continuous as that of India (Ramaswami Aiyar *et al.*, 1999).

2.2 Origins of Hinduism (Age of the Vedas)

Hinduism can be traced back to its origins when, in 1500 BCE, an Indo-European race called the Aryans invaded the indigenous people of Northern India known as Dravidians and replaced the Indus valley civilisation (Kirkland, 1999; Johnsen, 2009).

The Aryan's religion focused on sacrifices to a variety of Gods and Goddesses which were conducted by Brahmins (also known as priests) (Kirkland, 1999). The religious practices were from a sacred text called the Vedas. There were four Vedas with Rig Veda being the oldest. Most of the knowledge of the religion is contained in this sacred text. It consists of hymns to Gods composed by unknown prophets. The other

three Vedas (the Sama Veda; Yajur Veda and Atharva Veda) contain other materials pertaining to Vedic sacrifices and other religious matters. The four Vedas have been passed down orally from one generation to the next.

Along with the sacred books of Vedas are Upanishads; Purana; Gita and Shastars (Kirkland, 1999; Vijayalakshmi, 1993; Khan, 2011). The Vedas are still considered to be the highest of all Hindu scriptures, even among those whose beliefs and practices may differ (Kirkland, 1999). However, Khan (2011:148) views the Purana as the oldest most sacred scripture of Hinduism as it allowed access to all and not just a selected few. The important basic belief in these scriptures is the three Gods of Hinduism which signify the holy trinity, i.e. Lord Brahma, the creator of the Universe, Lord Vishnu, ensuring survival and continuance of the Universe, and Lord Shiva, the destroyer of the Universe (Khan, 2011:143). The scriptures will not be discussed in detail but references will be made to those texts and parts thereof that are of relevance to the study.

2.3 New Religious Ideas

Around the 7th-5th centuries BCE the Brahmans, who meditated upon the meaning of the rituals prescribed by the Vedas, were possibly influenced by other philosophies as they began developing new ideas about life and the universe. The texts in which they were captured were called Upanishads (Kirkland, 1999). The Upanishads beliefs were as follows:

The path of knowledge or insight

Humans and all emotional, conscious beings are trapped in an endless cycle of birth, death and rebirth, which is referred to as Samsara. This is controlled by the powers of karma, which is the automatic moral law for which all actions have appropriate consequences (Kirkland, 1999; Muthuraj, 2003:2). Karma is explained by Muthuraj (2003:2) as what man has achieved in the past and is answerable to. Due to him acquiring certain tendencies and dispositions it goads him to behave in a particular manner. However, he has the freedom to shape and change his future according to will. So karma in modern day understanding does not determine the person you are but provides more direction.

The Upanishads believed that, beyond Samsara, there also was a reality called Brahman, which is a process of getting to know one's true self through experiential awareness. Getting to know one's true self is called Atman. When true experiential awareness of oneself is achieved, then liberation from Samsara will be achieved – this is called Moksha (Kirkland, 1999). This basis of a system that encapsulates these beliefs is called Vedanta. Other new perspectives emerged in the age of Upanishads; they were non-Hindu religions called Jainism and Buddhism (Kirkland, 1999).

2.4. The Path of Duty (Dharma)

Dharma is defined as one's social, spiritual and moral duty which will enable liberation from Samsara (Kirkland, 1999). Hindu Dharma is sometimes understood in terms of one's social category which stems from the caste system called the "varna". The four basic varnas are: priests (Brahmans), warriors and rulers, tradesmen, and labourers (Kirkland, 1999). The social impact dharma has on the environment will be discussed later in this research.

2.5. The Path of Devotion (Bhakti)

Bhakti refers to the complete devotion for one's deity, i.e. immersion in selfless love for one's deity (God). There are many others, male and female. It is important at this stage to briefly describe the different Hindu Gods and Goddesses and what each signifies.

Brahma is credited with the creation of the Universe. Vishnu is responsible for the survival and continuance of the Universe. Shiva is the destroyer of the Universe (Khan, 2011:143). The Bhagavad Gita (BG), which is an episode from the sacred scripture Mahabharata, is referred to by Kirkland (1999) as a compendium of Hinduism and as the most popular of all Hindu sacred writings. The paths to liberation are all captured in the BG, which incorporates amongst others the teachings of the Vedanta society and International society for Krishna consciousness (Kirkland, 1999).

The conceptualisation of nature within the Indian worldview, specifically in Hinduism, is illustrated to a great extent by mythical, cultural narratives and rituals as are captured in the Bhagavad Gita. According to Baindur (2009: 44-45) the idea of non-human nature does not exist as humans interpret nature and forms part of nature in a large cosmic reality. People, according to the Indian worldview, interpret realities not as they are, but as they occur and are meant to occur within these worldviews. Space, for example, in the sacred texts is described with symbolic representations, together with an approach to ecological understanding that goes beyond the materialistic or physical notions of the environment. The oral histories are depicted in the natural elements and natural objects, especially water; rocks and trees and do not only depict architectures of the human being. This is supported by (Vijayalakshmi, 1993:2) who explains how nature, according to Hinduism, was mainly personified which gave rise to deification. Air; Sun; Fire; Rain and Storm played a vital role in satisfying human need and were then eulogised in the hymns of Vedas. According to Johnsen (2002: 4 -6) one out of every six people on earth is a Hindu, as is anyone who is born into the indigenous religion of Greater India, i.e. the region where Hindu culture was in force until the advent of Buddhism and Islam. This includes the countries we now call India, Afghanistan, Pakistan, Bangladesh, Nepal, Bhutan, Ladakh, Sri Lanka, parts of Tibet, Indonesia and Malaysia.

Hinduism is still practiced by over 80% of the population of India (US State Department's International Religious Freedom Report, 2006). Today over 60 million Hindus live outside India. It is now becoming less of an exotic Eastern religion but more of a global presence (Johnsen, 2009). A Hindu is anyone born into a Hindu family who accepts the Veda (Hindu Bible) as the source of their tradition; participating in Hindu sacraments. The word Hindu originated from the Persians mispronouncing Sindhu; people living to the east of the Sindhu River were called Hindu. The more traditional term for Hinduism is "Santana Dharma" – the eternal religion. Hindus consider their religion to be eternal because it is not based on man's preaching but on the eternal laws of nature. According to Hinduism, time is cyclical and not progressing forward, contrary to Judaism, Christianity and Islam. Medieval Hindu scriptures mention cycles of mountains which, they say, grow incrementally and then sink back into the ground, e.g. the constantly growing Himalayas or the shortening of the Vindhya mountain range in central India. The scriptures also mention the changing course of rivers that turn into sand, e.g. the Sindh today; empires, such as the Greek and Roman empires, which rise and then die off. It is also believed according to the scriptures, that in the end the very atoms that form the universe will dissolve away and then slowly the universe will reform. According to Hinduism everything is recycled, even the universe (Johnsen, 2009:8-10). This is in alignment with the Gaia Hypothesis (Miller, 1989; Barrotta, 2011; Cooper, 1998:166).

2.7 The conservation of the environment

With Hinduism being the oldest religion (Khan, 2011:143; Kirkland, 1999), dating back to 1300 BC to 1500 AD, and the inclusion of the environment in its Vedic hymns, which were from the first Hindu sacred texts (Vijayalakshmi, 1993:2), there lies validity in the statement that "Indian religious and philosophical traditions embody the earliest concept of environmental ethics." (Kala & Sharma, 2010:85-89.) Although Kala & Sharma, (2010) make reference to "Indian" beliefs, most of them stem from Hinduism, as it is safe to assume with 82% of the Indian population being Hindu, as well as the contents being cross-referenced to other literature in this study that appear in the bibliography. There is a spiritual relationship between animal, plant and man and the Vedic seer (prophet) encapsulates this theory with the following saying: "Mata Bhumi Putroham Prithivya (Earth is my mother, I am her son)." (WWF, 1986:10; Vijayalakshmi, 1993: 44.) This is also the philosophy of James Lovelock, an English scientist who was the founder of the Gaia Hypothesis. "Gaia", named after the Greek goddess, is the name that Lovelock gives the Earth. The Gaia Hypothesis claims that the earth, Gaia, is alive and has a self-regulating system (Miller, 1989). All life forms of the planet are part of Gaia and in their diversity co-evolve and contribute interactively; not for their own prosperity and growth, but for a larger whole called Gaia (Barrotta, 2011; Miller, 1989). Lovelock, according to Miller(1989), points out that Gaia, being ancient and resourceful enough to have carried out these successive changes of the planet, including asteroid collisions and other setbacks, may not be endangered by man's environmental destructions, else the human race will be in danger; not only from its own reactions but from Gaia's reaction herself.

An ancient quote says: “It was through the worship of trees that man attempted to approach God.”(Kala & Sharma, 2009:86.) This ancient quote is further supported by Fowler-Smith (2009) who, at the time of the article being written, was a senior lecturer and director of the Imaging the Land International Research Institute (ILIRI) at the College of Fine Arts from the University of NSW in Sydney, Australia. Fowler-Smith (2009:48) stated that, after travelling through ten states of India, it had become clear to her, even as a non-Hindu, that her experiences had altered her perception of trees. She had experienced through her travels in India the numerous aesthetic variations of tree adornments and worship. She argues that, beyond a conservationist and economic perspective, the religious context in which the tree is venerated has positively affected the Indian culture and preservation of trees.

In a desert state of India called Rajasthan the Khejri tree is valued for its moisture-retaining properties which, even if there is construction or agricultural farming, the Khejri tree will not be axed. Such an example is evident in the Salasar Balaji temple in the Sikar district where the temple’s building is constructed in such a way that the tree remains all intact, providing shelter to a large number of house sparrows that live there fearlessly. From mythological beliefs many trees are considered to be sacred and are worshipped (Fowler-Smith, 2009; Vijayalakshmi, 1993).

Table 1 below describes the different species of trees that are conserved in India stemming mainly from mythological beliefs. The Tulsi leaf is considered to be holy in Hinduism and is worshipped daily. The Peepal and Bargad are believed to have spirits residing in them and anyone who uproots them will be harmed.

Scientific Name	Vernacular Name	Beliefs/Uses
Cynodon dactylon	Doob	Used in rituals
Ficus religiosa	Peepal	Sacred Tree
Ficus benghalensis	Bargad	Sacred Tree
Ocimum sanctum	Tulsi	Sacred + medicinal herb
Artemisia sps.	Dhoop or Kunju	Used in rituals; significant as air purifier
Musa paradisiaca	Banana	Used in rituals + biopesticide
Emblica officinalis	Amla	Sacred + source of vitamin C

Mangifera indica	Mango	Used in rituals
Prosopis cineraria	Khejri	Used for soil moisture retention in deserts
Phoenix spp.	Khajjur	Roosting place of fruit bats
Azadirachta indica	Neem	Sacred + medicinal tree

Table 1. List of plant species conserved in India, Kala and Sharma (2009:86).

The worshipping of animals known as zoolatry (Kala & Sharma, 2010:87; Krishna *et al.*, 2008) has been practiced by Indian Hindus for ages. With the intention of demonstrating affection towards nature a number of animal species are coincidentally conserved. Some of the animals considered sacred by Hindus are tigers, cows, cobras, rats and elephants. Feeding animals in India, irrespective of religion, signifies more than just the sheer love of the act itself, but it is symbolic of love and compassion towards nature and its creations. The cow is considered to be “Kamadhenu”, which means the wish fulfilling the mythical mother and is worshipped all over India, thus enabling conservation of cows. It is also believed that, if one suffers from chicken pox or measles, one will recover soon if he/she has fed off a cow (Kala & Sharma, 2010:87). This is supported by Vijayalakshmi (1993:2) who describes the cow which gives milk, curd and ghee as being considered as an animal that, according to Hindu teachings, should not be killed. The killing of a cow became a sin which was punishable.

Snakes, including the deadly cobra, are worshipped on Nagpanchami. It is believed that the conservation of such animals help in the conservation of top carnivores at the top of the food chain. Snakes also assist the farmers in the control of rodents and thus protection of their crops. Elephants are revered, especially in the South of India, due to the Hindu mythological tale of Ganesha – the elephant-headed God. The important temples in India have elephants of their own for the purposes of festive occasions. Devotees visiting the temple can then perform the ritual of feeding the elephants. With these beliefs etched firmly in one’s mind it is no surprise that the wild elephants that enter the agricultural fields are not killed and are just scared off, resulting in the conservation of endangered species (Kala & Sharma, 2009:87; Krishna *et al.*, 2008).

Rats, commonly considered as pests everywhere else in the world, are worshipped in a temple called Karni Mata near Bikaner in Rajasthan. The castes of poets or lyricists that are devotees are called Charans. The Charans believe that, when they die, they are reborn as rats known as Kaba in the temple, and the dead Kabas will be reborn as Charans. Every day devotees throng at the Karni Mata to feed the rats with coconut, sweets and milk (Kala & Sharma, 2009:87; Charan, 2009).

The animals, which are bearers of the different trophic levels, are protected by the above acts of conservation, and create an environment of co-existence.

Scientific Name	Vernacular Name	Beliefs/Uses
Bos Taurus	Cow	Used in rituals
Panthera Tigris	Tiger	Sacred
Ictinaetus malayensis	Eagle	(not specified)
Elephas maximus indicus	Elephant	Sacred
Bandicota bengalensis	Rat	Sacred
Naga naja	Snake	Sacred
Pavo cristatus	Peacock	Sacred + parliamentary status
Macaca mulatta	Monkey	Sacred
Antilope cervicapra	Black Buck	Sacred + endangered
Columba livia	Pigeon	Sacred
Canis familiaris	Dog	Sacred
Myopopone sp.	Fishes and turtles	(not specified)
Myopopone sp.	Ants	Ecological significance

Table 2. List of animal species conserved in India, Kala and Sharma (2009:87).

2.8 Sacred Groves and the Bishnoi Community

Certain natural ecosystems known as “sacred groves” or “orans” are protected by the local communities due to religious beliefs and traditions that have passed on from generation to generation. Sacred groves can be defined as patches of vegetation that could be from a few trees to forests of several acres (Kala & Sharma, 2010:87; Fowler-Smith, 2009: 43-44; Kent, 2009:2). These sacred groves could have been dedicated to local deities or tree spirits. The manner in which the sacred groves are protected in certain boundaries or rules, differ from one grove to the next. For example, in Garo and Khasi in North Eastern India human interference in these groves is completely prohibited, which includes picking up of dry foliage and fallen fruit for the fear that spirits would be disturbed; cause disease and natural disasters or failure of crops. Other sacred groves, for example in central India, may be a little more lenient and prohibit the cutting of any trees but allow the picking up of fallen parts.

The origins of the Bishnoi community are considered as being either through Hinduism or Islam. However, popular belief is that Bishnois are now considered a caste-group within the Hindu community who worship one of the Hindu Gods Vishnu (Anon, 2010; Osigwe, 2004:14; Kala & Sharma, 2010:88-89). In 1485 CE a

leader, known as Jambheśvara, founded the Bishnoi community who used the term “dharma” several times to signify both the socio-spiritual order as well as moral duty. He laid down twenty-nine rules for his followers. Eight of these rules were directly linked to conserving and protecting of trees and animals. These included non-sterilisation of bulls, keeping male goats in sanctuary, prohibiting the killing of animals and felling of any type of green trees, and the protection of all life forms. He also forbade the wearing of blue clothes due to the dye being made after the cutting of various shrubs. Seven other rules were directly linked to social behaviour in directing his followers to be simple; truthful; abstentious; pure and happy; to avoid adultery and make false arguments. He prohibited the criticising of others but promoted the tolerance of criticism by others. Ten rules concerned personal hygiene and maintaining of good health instructing his followers to drink filtered water; take a bath daily; improve sanitary conditions; abstain from the use of opium, tobacco and other narcotics, and abstinence of meat. Other rules included to remember that God is omnipresent and that rituals should be performed daily (Anon, 2010).

One has to mention the Indian eco-feminist, Amrita Devi, who has to be remembered for the massive sacrifice she led for the protection of the Khejari trees in September 1730 in Khejadali, as the story was told by the Bishnoi community. As many as 363 Bishnoi men and women, led by Amrita Devi, had sacrificed their lives to protect these trees from soldiers of a king from Jodhpur who had massacred them. On 12 September 1978, which according to the lunar Hindu calendar, was the corresponding equivalent day, a large fair was held at Khejadali for the first time to commemorate the massacre, which now has become an annual celebration (Anon, 2010; Osiawe, 2004:14).

The Bishnois is one of the many Hindu communities or communities originating from Hindu belief in India that exemplify sustainable living. The Bishnois manage sacred groves, called orans, in a desert region in North West India in Rajasthan. Due to the conservation practices of the Bishnois community this region, which seems unlikely to sustain vegetation and wildlife, has a higher density of human and animal population than any other desert region in the world (Kala & Sharma, 2009:87). The basic philosophy of Bishnois is that all living things have a right to live and share resources, coupled with a set of laws, e.g. prohibition of killing animals and felling of trees, especially their most sacred khejadi tree which possesses life sustaining properties. The three pillars of sustainability demonstrated by the Bishnois are illustrated below:

Ecology – The sacred groves that are conserved is a rich repository of floral and faunal diversity and is often the last refuge of endemic species in the geographical area. The aquifers are in the form of ponds; streams or springs, which often meet the requirements of the local community, and the vegetative cover help in the recharging the aquifers. The vegetative cover, which was considered unlikely in this arid region, improves the soil stability and prevents soil erosion in the region (Kala & Sharma, 2009:88).

Economy - The sacred groves display economic importance as they are a rich source of fodder, fuel, timber, berries, roots and herbs. They also provide the grazing ground for livestock and provide a livelihood to poor and landless communities. They contain a rich biogenetic diversity of various plants and trees, e.g. jamun (*Syzygiumcumini*), mango (*Mangifera indica*), kair (*Capparis decidua*), and khajjur (phoenix species) – different roosting and pest controlling birds. Such a biodiversity rich area creates an opportunity to earn foreign exchange (Kala & Sharma, 2009:88).

Politics - Even though the legal status of sacred groves vary from one region to the next they do affect the local politics of the communities. They may be managed by different caste groups, or by a village as a whole, or by neighbouring districts in a larger geographical area (Kala & Sharma, 2009:88).

Social - Sacred Groves help define the cultural identity of the group that protects them and facilitates cultural bonding between the different communities, thus maintaining harmony in social life, e.g. annual village festivals and family celebrations that take place in sacred groves (Kala & Sharma, 2009:88).

The Bishnoi Community is still active in environmentalism today and has demonstrated their influence over the legal system. For example, there was no exception made for the famous Indian actor, Salman Khan, in 1998 when he shot a blackbuck. He was sentenced to five years imprisonment as the blackbuck is considered to be the sacred antelope of the Bishnois. As the author of this article explains, he or she has seen a clear evolution from ritualistic worshipping to a practical everyday implementation of this ecological activism, thus illustrating environmentalism deep-rooted in dharmic tradition. Dharmic ecology, which is another fascinating spinoff from Hinduism, will be further discussed.

2.9 Dharmic ecology

Dharma was previously defined as one's social; spiritual and moral duty which would enable liberation from the endless cycle of birth; death and rebirth (Samsara) (Vijayalakshmi, 1993; Kala & Sharma 2009). Jain (2009) explores the practices of the Swadhyayas' lifestyle and its ecological outcomes. Swadhyayas, like other Hindus, use dharma to link their religious practices and their social duties.

According to the article the Swadhyaya movement arose in the mid twentieth century in Gujarat and its founder was the late Pandurang Shastri Athavale. Although environmentalism is neither the goal nor the driving force regarding the movement, it definitely reinforces the message of ecological conservation as all natural resources, such as the earth; water; trees and cattle are nurtured. Athavale teachings of Swadhyaya were based on the Upanishadic concept of "Indwelling God". According to him, since God

resides in everybody, one should develop a sense of spiritual self-respect irrespective of one's possessions or social status; this could be thought of as a renaissance in the Indian caste system mentality (Jain, 2009:307). Swadhyaya was invited to present its ecological philosophy and work at the 1992 conference in Montreal.

Sages, according to Athavale, had the spiritual vision to see divinity in the entire universe and revere some representative plants. They deliberately chose the tulsi which, although it offers no material benefit to humans, is considered sacred and grown and worshipped by millions of Hindus. Similarly bilva is considered sacred for Lord Shiva and the grass dūrvā for Lord Ganesha worshipping. A ritual called Vata-Sāvitrīs is performed by married women where a sacred thread is tied to vata and pipal trees and is worshipped. Women ask for longevity for their husbands and families from these huge trees. (Jain, 2009:308; Fowler-Smith, 2009: 46).

According to Athavale humans can learn about ethical values through trees. Trees, for example, establish a fixed bonding with the land; they grow at one place and provide shelter to others and are able to withstand extreme natural conditions, e.g. thunderstorms and extreme temperatures during different seasons with courage and patience. Sacrifice and selflessness are demonstrated by the mythological narrative when the Hindu God Shiva drank poison so that there would be enough nectar for the other Gods; likewise trees absorb carbon dioxide and change it into oxygen which is then set free in the atmosphere to sustain other life forms.

All parts of trees are used for the benefit of others, for example fruit for physical strength, roots and herbs for medicine, leaves and flowers for sacred rituals, timber for construction and shelter for travellers. These inherent qualities and virtues are referred to as the dharma of a tree by Athavale and can be used as a benchmark for human dharmic ecology. According to Athavale's interpretation of the *Bhagavad Gītā* (15.1), this world is the aśvattha tree whose leaves are the Vedas. Just as the leaves decorate a tree, Vedic knowledge decorates the world (Jain, 2009:309).

Athavale provided a practical shape to his dharmic ecology when he inaugurated the first tree temple at village Kalavad in the Rajkot district in Gujarat where 6000 trees were planted. It was named after the Vedic sage Yājñavalkya and was called Yājñavalkya Upavan. Athavale had created approximately two dozen such tree temples in Gujarat, Maharashtra and Andhra Pradesh. The villagers are devotees of the tree temples nurturing them but are not regarded as gardeners. The fruits are regarded as divine gifts and any income generated from the selling of fruits is distributed amongst the needy families, thus demonstrating sustainable living through dharmic ecology (Jain, 2009: 310-311). Again, as much as the teachings of Swadhyaya are not directly promoting environmentalism, they definitely exhibit a positive

impact on sustainable practices which stem from Hindu philosophy. This alone is supportive of the hypothesis of this study: Hindu religious teachings can positively influence environmental ethics and promote environmental sustainability.

The discussion thus far has highlighted the positive aspects of Hinduism on the environment. However, some of the practices of Hinduism are not all environmentally friendly. In fact, some may consider them taboo and disturbing irrespective of the cultural explanations provided. How does one separate the religious dogmatic practices from one's own inherent viewpoint of the environment?

2.10 The Double-Edged sword

This mini-dissertation will highlight the inconsistencies in Hindu religious practices that in fact cause pollution which is in conflict with the environmental values proclaimed by Hinduism. Kent (2009:4-6) vividly describes how dogmatic values can either result in positive or negative influences on the environment, e.g. the preservation of the forests referred to as the sacred groves promotes environmental ethics and values; however, the ritual sacrifices of animals performed in the bloodcurdling and malicious manner nullify the positive attributes of Hinduism. For instance, people worship the River Ganges as the Goddess *Ganga Ma* and consider that she is sacred, but this high religious value that is placed upon the river is not translated into environmental values (Tomalin, 2004; Drew, 2012). While people bathe in the Ganges to remove "impurities", it seems as though little distinction is made between ritual and material impurity. Although *Ganga Ma* herself has an infinite capacity to remove ritual impurities and remains ritually pure, the ecological health of the river is suffering from the failure to seriously consider that there is a limit to the volume of material wastes the river can effectively carry away. Thus, the high regard with which people hold *Ganga Ma* tends to lead them to the conclusion that there is nothing they can do to harm or pollute her (Drew, 2012: 348-354).

Chapter 3: Survey conducted at Benoni Temple

3.1 Background to survey

Almost all religions have prescriptions regarding the environment yet the state of the environment is deteriorating. Why? Is it because people do not practice what they believe or proclaim? Is it due to flaws in religious teachings? These questions motivated the author to conduct the survey at the Benoni Temple. Before the research progresses to exploring the surveys conducted at the Benoni temple in South Africa, it is important to mention a study that the author had drawn inspiration from.

The study was conducted at the Bhaktivedanta Manor Temple (BMT) near Watford in England at a Janmashtami festival (Chauhun *et al.*, 2009). Although the objective of this survey and campaign was to an extent different to the one conducted in South Africa, the strategy of promoting environmental awareness through religion was synonymous. The campaign called “Ecotent” was conducted at the BMT and involved a multi-ethnic Vishnaiva community. Vishnaiva are followers of Lord Vishnu or his incarnate Lord Krishna. (Anon, 2012) The Vishnaivas prescribe a life of simple living and higher thoughts (Chauhun *et al.*, 2009:4).

The Janmashthami festival was an ideal opportunity to promote the Ecotent as this was the celebration of Lord Krishna returning to free the earth of its burdens and to re-establish Dharma, which is the proper way of living (Chauhun *et al.*, 2009:114-115). Lord Vishnu, or Krishna as mentioned earlier, represents the maintaining and continuance of the universe; in other words, *sustainability*. The intention of the campaign was to raise spiritual and self-consciousness by linking the concept of karma to environmental degradation, i.e. the concept that every action has a reaction. According to Lovelock (quoted by Chauhun *et al.*, 2009:116), if we recognize that we are the agents of planetary change, then this would invoke a sense of guilt and give environmentalism a religious significance. Although there is merit in Lovelock’s statement, and guilt can be an emotion that steers one towards religion, the intention of the campaign was not so much to invoke guilt but rather to create environmental awareness through thought and spiritual-provoking exercises. The Ecotent prompted the devotees to realise that there were practical steps that could be taken to alleviate the environmental crises by reducing one’s ecological footprint. This was a bold initiative considering the words of former UN Secretary General Kofi Annan (quoted by Chauhun *et al.*, 2009:115): “Our biggest challenge in this new century is to take an idea that seems abstract – sustainable development – and turn it into a reality for all the world’s people.”

The Ecotent had three aims (Chauhun *et al.*, 2009:116-117):

- To convey a spiritual message involving purification of the individual spirit through service to the world and renunciation of material excesses;

- To raise self-consciousness of one's personal impact on the Earth by linking the concept of Karma to environmental degradation; and
- To encourage practical actions that might simultaneously achieve both spiritual growth and a reduced personal ecological footprint (karmic).

There was a four step process in which communication was conducted (Chauhun *et al.*, 2009:116-117):

- Step 1 : Instructions in the form of a trail through a series of tableaux and audio/visual displays;
- Step 2: Self-assessment where each participant was encouraged to complete a standard ecological footprint or karmic footprint questionnaire;
- Step 3: Each participant was encouraged to reflect on and discuss their questionnaire responses; and
- Step 4: Engaged action where participants were guided towards a pledge tree on which they attached their own personal resolution and finally, to take a tree sapling to plant on their own property if they wished.

The festival took place over two days with a total number of 40 000 devotees attending, 400-600 participating in the Ecotent, 278 completing the survey and 173 participating in the pledge tree. The results could not confirm whether the 173 participants were from the 278 that participated in the survey or from the 400-600 that participated in the Ecotent.

Although the results that were obtained showed that there was room to improve, the author agrees with (Chauhun *et al.*, 2009:123) that the most significant outcome of the Ecotent was the willingness to change towards a more sustainable lifestyle. Although the individual steps are small, cumulatively they will make a significant impact, especially considering the strategically chosen festival and its significance. A key message from the campaign is the involvement of the family and that the future does matter; it drives the message of sustainability even more strongly.

The survey conducted at the Benoni temple differs from the Ecotent in that the Ecotent had made the assumption that the environmental significance of the Jainmasthan festival was already understood by the devotees. The author has delved into this aspect to establish if the Hindu religious teachings are effectively communicating the intertwined environmental messages. Also questioned was whether lifestyles were synonymous with the teachings and if the devotees were willing to make a commitment towards changing one aspect of their lifestyle to reduce the individual's ecological footprint (similar to the Ecotent). Some of the questions were also based on sustainability and linked to the Millennium Development Goals .The survey could be viewed as a prelude for a future campaign such as the Ecotent.

Two questionnaires were developed with similar questions but posed slightly different for the two target audiences, i.e. the Hindu religious leaders and the Hindu devotees. One had to tread very carefully with regards to the questions posed to both target audiences. Permission had to be gained from the leaders to commence with the survey. It was not possible to include direct questions related to the title: "Hinduism: The "Double-edged sword on environmentalism", as it may have been viewed as disrespectful. Instead the questions were posed mainly on the everyday lifestyle and the devotees' awareness on waste recycling and energy saving. A burning question to both devotees and leaders would have been: "People will consider the Ganges to be holy, but at the same time pollute it; can this be either attributed to an inconsistency in the religious teachings, or ignorance amongst the believers?" The more direct questions were left for after the completion of the survey and put to the Secretary of the Eastern Region Council-Tamil Federation of Gauteng, Mr Krishna Govindasamy. One of the questions was: "Some of the Hindu rituals actually impact negatively on the environment, e.g. the placing of unnatural, non-degradable objects into the rivers or seas. How does one overcome this and can you provide examples of how the Benoni Temple has substituted such objects with more natural ones? How do we communicate this further?"

a) Hindu Religious leaders

The target population was chairpersons from the Benoni temple and that of the Hindu Maha Saba in Kwazulu- Natal, including the President of the Hindu Maha Saba. There were thirteen individuals chosen from these associations. Had a larger population been chosen, it would have meant moving outside the boundaries of Benoni, which would have created a skewed picture regarding correlations. Of the thirteen respondents seven responded .The reason for only 53.85% of the target population responding could be attributed to a lack of availability from these leaders due to most of them holding top management and leadership positions in their mainstream occupations.

b) Hindu Devotees

The target population was the Hindu devotees at the Benoni temple, i.e. individuals who were not part of the Board or decision making them at the temple and who had e-mail access. These respondents' details were obtained from the group of e-mail addresses from the temple. In total there were 121 people in the target audience and there were 64 respondents resulting in a 52.89 % response rate. The questionnaires were compiled to provide answers to most of the research questions. The research questions and corresponding questions from the questionnaires will be further discussed to uncover the rationale behind the methodology.

3.2 Questionnaire: The Hindu religious leaders

The following questions were posed to the leaders in the form of the web based questionnaire:

Question 1:

To what extent do you think Hindu Religious associations are aware of the environmental challenges that face SA?

- Completely aware
- Partially aware
- Completely unaware

The purpose of this question was to establish the perception of religious leaders regarding the environmental awareness of associations. The results could lead to further exploration of environmental organisations being more involved with Hindu teachings. It could be an opportunity to create more awareness if there is indeed a low level of awareness. It could impact directly on the hypothesis Hindu religious teachings positively impact on environmental ethics and promote environmental sustainability.

Question 2:

To what extent do you think SA Hindu religious associations are involved in contributing to the alleviation of environmental crises, e.g. climate change, water conservation, poverty alleviation or community uplifting?

- Very involved
- Involved
- Slightly involved
- Not involved at all

The intention of this question was to understand the involvement of the Hindu associations with the community. Interesting relationships between question 1 and question 2 can be derived, for example: if most leaders are under the perception that leaders are aware of the environmental crises, to what extent are they involved with alleviating the crises?

Question 3:

To what extent is nature entwined with Hinduism according to religious scriptures?

- Completely
- Partially
- Not at all

This question is to search deeper regarding the leaders' opinion on whether nature is entwined with Hinduism. It is more to determine the perception from the leaders themselves although the literature study proves this already.

Question 4:

To what extent is the link in Hinduism and the environment communicated to devotees by the Hindu congregations or religious prayers?

- All the time
- Only during certain prayers or gatherings
- Very rarely
- Not at all
- There is no need to

The intention of the question is to establish the frequency to which the Hindu teachings refer to the environment. So, if the majority of the respondents for example answer "completely" to question 3 above, and if the majority responds to question 4 with "not at all" or "very rarely", it could provide an opportunity to approach the leaders regarding involving the environmental organisations at the temples, or including environmental awareness such as the Ecotent campaign.

Question 5:

Is there an opportunity in creating more environmental awareness through religious teachings at devotional services and prayers?

- Yes
- No

The intention of the question was to establish whether the leaders themselves see the opportunity in creating environmental awareness through the religious teachings. This would make it easier to approach the leaders with the involvement of the environmental organisations.

Question 6:

In your opinion, are Hindu devotees' lifestyles consistent with Hindu religious teachings with reference to the environment?

- Very consistent
- Consistent
- Slightly consistent
- Not consistent

- Not related at all

The objective was to establish the Hindu religious leaders' perception on whether Hindu lifestyles were consistent with the religious teachings. If, for example, the response was not consistent it would imply that there are major gaps in either the communication, or other external factors which could later be explored.

Question 7:

To what extent are environmental organisations involved with the Hindu associations?

- Very involved
- Partially involved
- Not involved at all

Here again it is important to understand the practical applications and community networking between the Hindu and Environmental associations.

Question 8:

Would you approve of environmental representatives communicating environmental awareness topics at Hindu devotional services?

- Yes
- No

If yes or no, please provide reasons and if no, under which conditions would you change your answer to yes?

This question was to gain the buy-in of the Hindu leaders. Only with their approval would a campaign such as the Ecotent be a success if applied in a South African Hindu community.

Question 9:

Which of the following environmental challenges has your association or temple positively contributed to the most over the past ten years?

- Poverty alleviation
- Climate change
- Water conservation
- Women empowerment
- Education
- Conservation of endangered species

- Conservation of forests/trees

This question was derived mainly from the Millennium Development Goals and it would be interesting to see the alignment between the two.

Question 10:

How, in your opinion, do you feel Hindu religious teachings can further improve the way South Africans treat the environment? What can Hindu associations do; what are the steps to be taken and which associations or individuals would you need assistance from in order to get there?

This question is open and intended to assist the leaders wherever possible to make this materialise where the religious teachings can be re-enacted.

3.3 Questionnaire: The Hindu devotees

The following questions were posed to the leaders in the form of the web-based questionnaire:

Question 1:

How clearly is the link between environmental conservation and Hinduism explained at the Hindu temples?

- Very clear
- Clear
- Unsure
- Not explained at all

This question sets the foundation in establishing whether environmental conservation is clearly communicated or understood by the devotees.

Question 2:

Do you practice energy conservation at home or work or school by switching off lights that are not in use?

- Always
- Sometimes
- Never

This question is posed to establish whether energy conservation is practised even though it is a small initiative. It implies the level of consciousness of the devotees.

Question 3:

The term "global warming" is often used to refer to the idea that the world's average temperature may be about 5 degrees Fahrenheit higher in 75 years than it is now. Do you think global warming is:

- Good?
- Neither good nor bad?
- Bad?

This question was also used in the Ecotent campaign and once more it was to establish the level of environmental consciousness of the devotees.

Question 4:

In your opinion are Hindu devotees' lifestyles consistent with Hindu religious teachings with reference to the environment?

- Yes
- No

Exactly the same question was posed to the religious leaders to establish if there is a difference in perceptions.

Question 5:

Is your household rubbish

- Not recycled or reused?
- Partly recycled and reused?
- Mostly recycled and reused?

Again this question is to establish the level of environmental awareness and practice by devotees.

Question 6:

Do you travel to work or school by

- Public transport?
- By lift club?
- By personal transport?

This question was also used in the Ecotent and to establish whether there is a consciousness of the carbon footprint

Question 7:

Which of the following environmental challenges have you personally contributed to the most over the past ten years?

- Poverty alleviation
- Climate change
- Water conservation
- Women empowerment
- Education
- Conservation or endangered species
- Conservation of forests/trees
- None

These alternatives are based on the Millennium Development Goals and are also posed to the leaders as part of the associations' contributions. The responses to this question could bear interesting correlation between the Hindu associations' influence over personal affiliation to a specific environmental cause.

Question 8:

Which of the following environmental challenges has your association or temple positively contributed to the most over the past ten years?

- Poverty alleviation
- Climate change
- Water conservation
- Women empowerment

- Education
- Conservation of endangered species
- Conservation of forests/trees
- None

This question was also based on the Millennium Development Goals. However, it was meant to determine how influential the association would be on individual choice regarding charity organisations to which to donate to.

Question 9:

Do you think it would be beneficial to you and the environment if environmental awareness topics at Hindu devotional services were communicated?

- Yes
- No

This was to gauge if there was a need from the Hindu devotees for more environmental awareness.

Question 10:

If we as Hindu devotees to this temple/association were to pledge to change one aspect of our lifestyle (that aspect is left to the individual's choice) to help our environment, would you be willing to participate in it?

- Yes
- No

This question was posed to gauge the willingness of the devotees to participate in a campaign such as the Ecotent.

Chapter 4: Results

4.1 Hindu religious leaders' survey

This chapter will provide response rates of the target audience and a graphic representation of the results obtained from the questionnaire for the Hindu religious leaders. All results are further interpreted from the graphs.

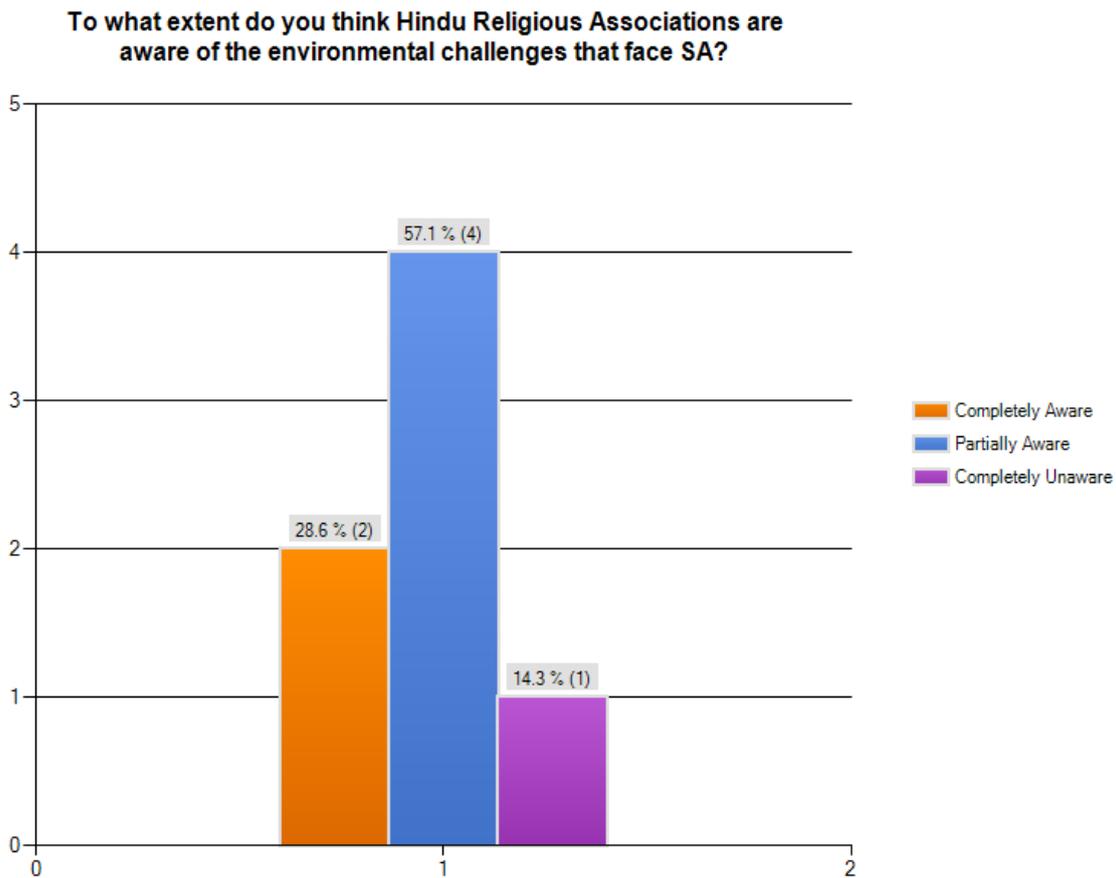
The table below summarises the target audience population, % response from target audience and % response rate for the Hindu religious leaders.

Questions to Hindu Religious Leaders	Target Audience Population	% Response from Target Audience	No. Responded to question	% Response Rate (From target audience that responded)
Question 1	13	53.85%	7	100%
Question 2	13	53.85%	7	100%
Question 3	13	53.85%	7	100%
Question 4	13	53.85%	7	100%
Question 5	13	53.85%	7	100%
Question 6	13	53.85%	7	100%
Question 7	13	53.85%	7	100%
Question 8	13	53.85%	7	100%
Question 9	13	53.85%	7	100%
Question 10	13	53.85%	7	100%

Table 3: Response from target population – Hindu religious leaders

The subheadings 4.1.1 to 4.1.10 following will analyse each question from the questionnaire to the Hindu religious leaders. The results are expressed in both values and percentages.

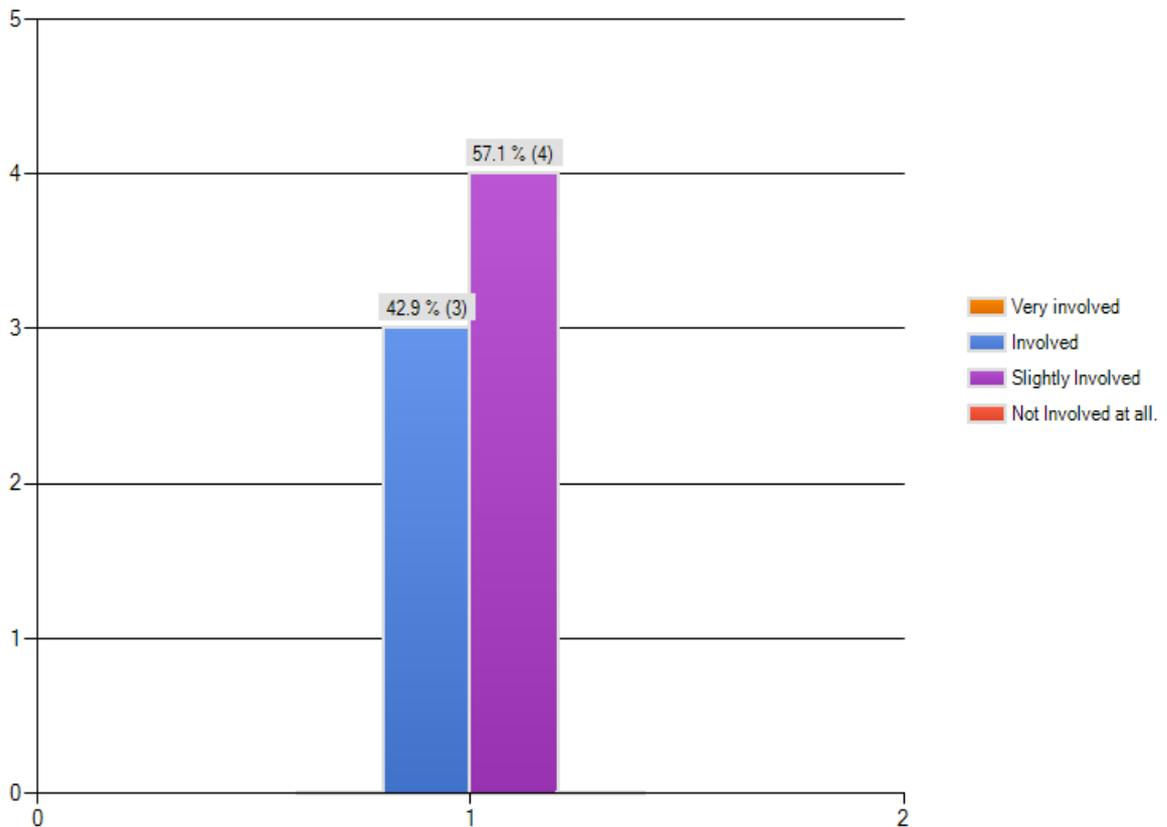
4.1.1 Hindu religious leaders: Question one



Response	28.6% completely aware, 57.1% partially aware and 14.3% completely unaware of the environmental challenges that SA face.
Interpretation	Majority of the leaders said that the Hindu Religious associations were partially aware of the environmental challenges SA faces. Looking at the purpose of this question it confirms that there is opportunity for environmental organisations to be more involved with Hindu teachings. It could be an opportunity to create more awareness and could directly impact on the hypothesis Hindu religious teachings “positively influence environmental ethics and promote environmental sustainability”.

4.1.2 Hindu religious leaders: Question two

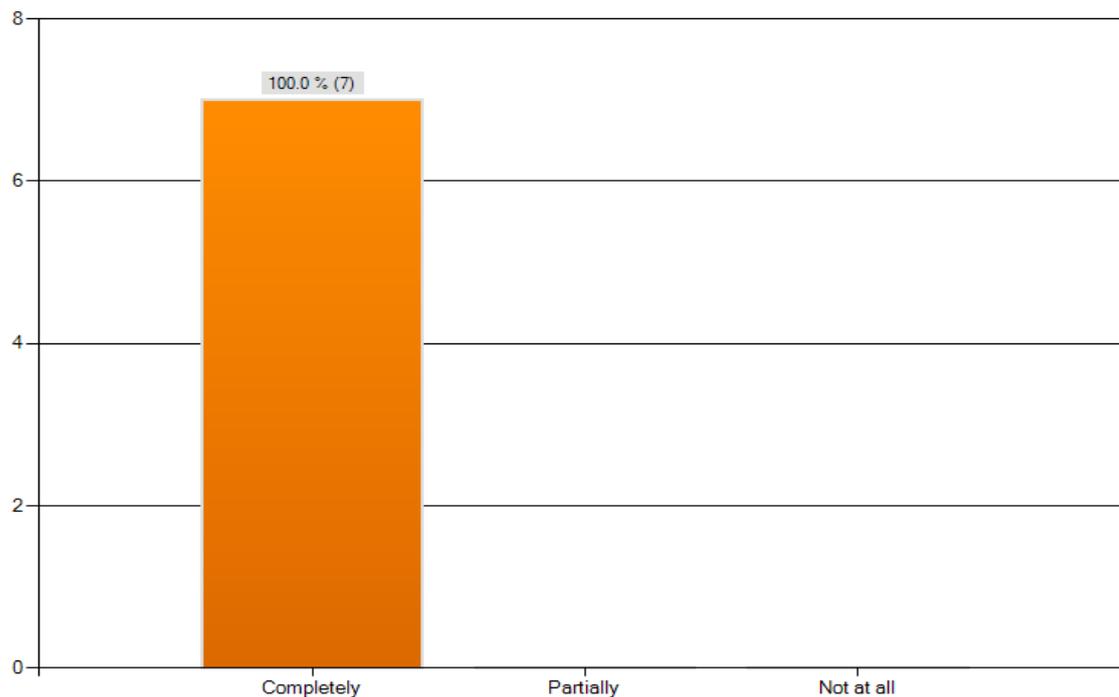
To what extent do you think SA Hindu Religious Associations are involved in contributing to the alleviation of environmental crises e.g climate change; water conservation; poverty alleviation or community upliftment?



Response	57.1% said slightly involved, while 42.9% said involved in contributing to the alleviation of the environmental crises, e.g. climate change; water conservation; poverty alleviation or community uplifting?
Interpretation	Majority of the religious leaders felt that there was only a slight involvement from Hindu associations in terms of contributing positively towards the environmental crises. With such a rich environmental consciousness in the Hindu scriptures there is an opportunity here for Hindu associations to become more involved with the alleviation of the environmental crises through the services and teachings.

4.1.3 Hindu religious leaders: Question three

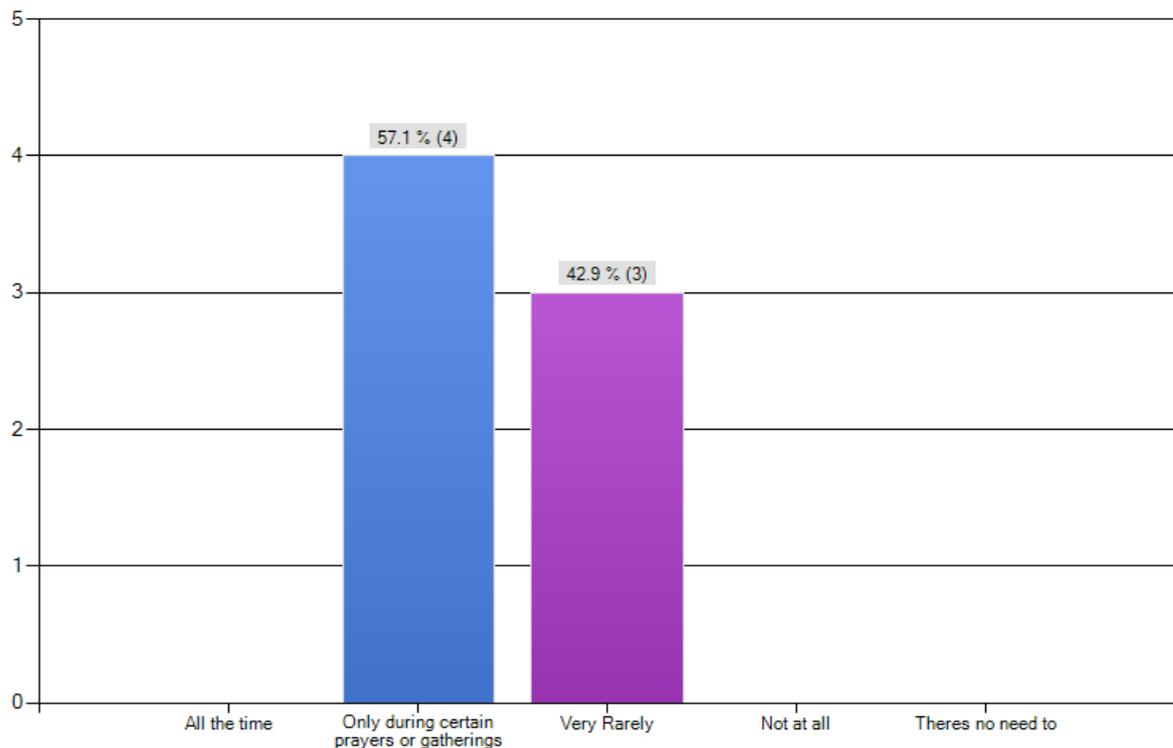
To what extent is nature entwined with Hinduism according to religious scriptures?



Response	100% of the leaders agreed that nature was completely entwined in the Hindu religious scriptures.
Interpretation	This confirms that the theoretical aspect of Hinduism has nature and the environment completely entwined, yet from questions one and two above leaders feel that Hindu associations are partially aware of the environmental crises and slightly involved in the alleviation of the environmental crises. This could also imply that the leaders do not appreciate that some practices are in fact harmful to the environment which consequently give rise to the double edged nature of Hinduism.

4.1.4 Hindu religious leaders: Question four

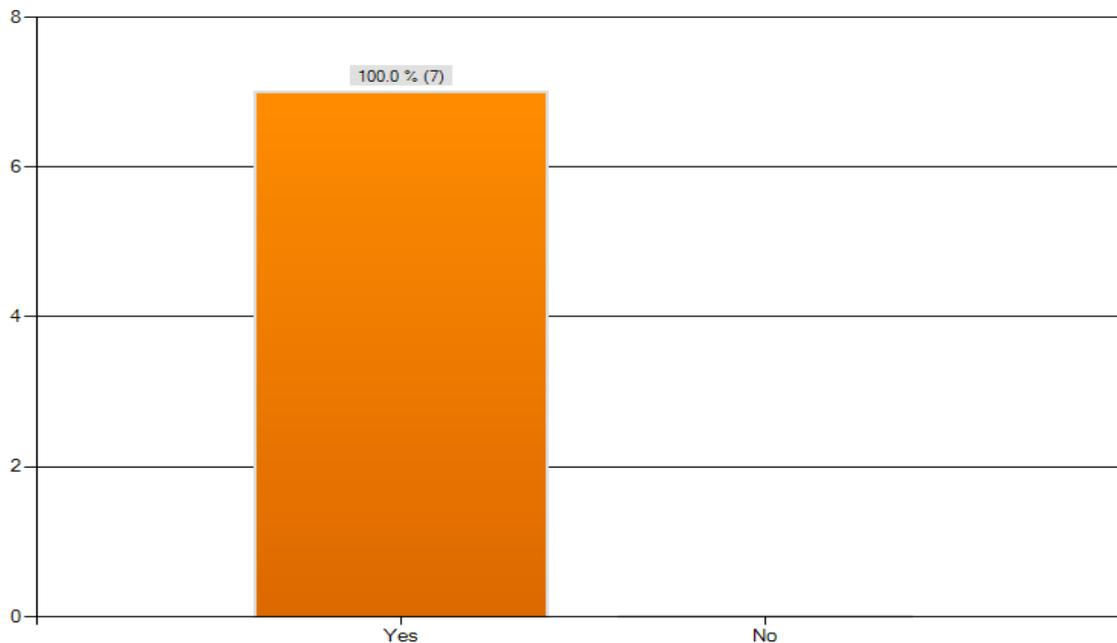
To what extent is the link in Hinduism and the environment communicated to devotees by the Hindu congregations or religious prayers?



Response	57.1% of the leaders said that the link between Hinduism and the environment was communicated only during certain prayers or gatherings, while 42.9% said it was done very rarely.
Interpretation	This verifies that the link is not communicated as often as one would expect, although the leaders do unanimously agree that nature is completely entwined in the religious teachings.

4.1.5 Hindu religious leaders: Question five

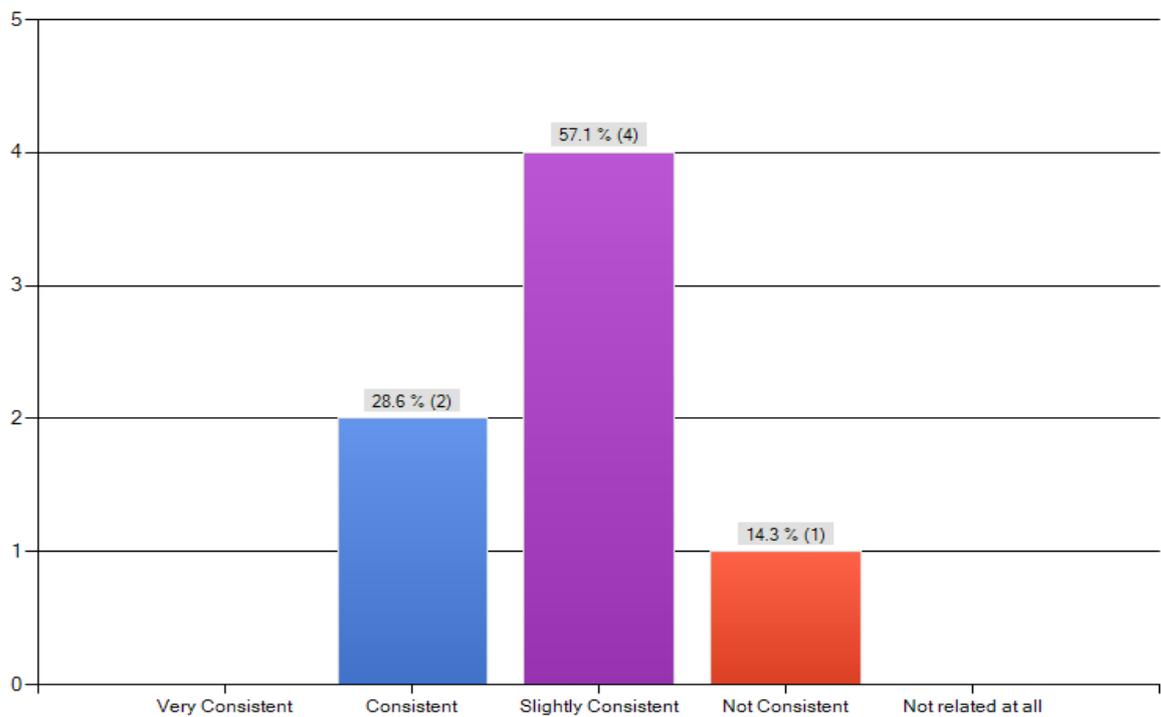
Is there an opportunity in creating more environmental awareness through religious teachings at devotional services and prayers?



Response	100% of the leaders agreed that there was an opportunity to create more environmental awareness through religious teachings at devotional services and prayers.
Interpretation	This is encouraging as one could only begin a campaign such as the Ecotent if the leaders agreed that there was a need and opportunity to create more environmental awareness through the religious teachings.

4.1.6 Hindu religious leaders: Question six

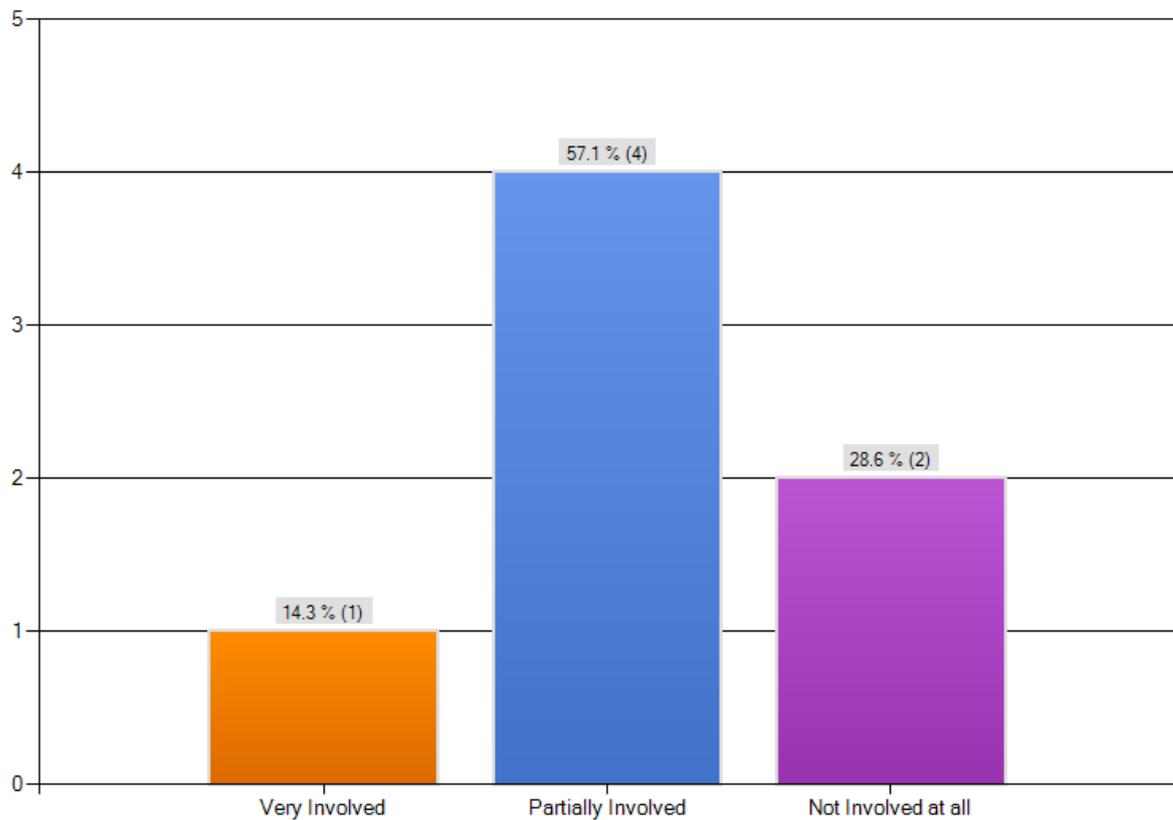
In your opinion are Hindu devotees lifestyles consistent with Hindu religious teachings with reference to the environment



Response	28.6% of the leaders said that Hindu devotees' lifestyles were consistent with the religious teachings; 57.1% said slightly consistent and 14.3% said not consistent.
Interpretation	A majority of the leaders said that the Hindu lifestyles generally were inconsistent with the religious teachings. More enquiries as to why this is the perception will be made in an interview with the Secretary of the Eastern Region Council - Tamil Federation of Gauteng, Mr Krish Govindasamy (Govindasamy, 2013). This also leads one to believe that there is a gap in the teachings and the Hindu scriptures.

4.1.7 Hindu religious leaders: Question seven

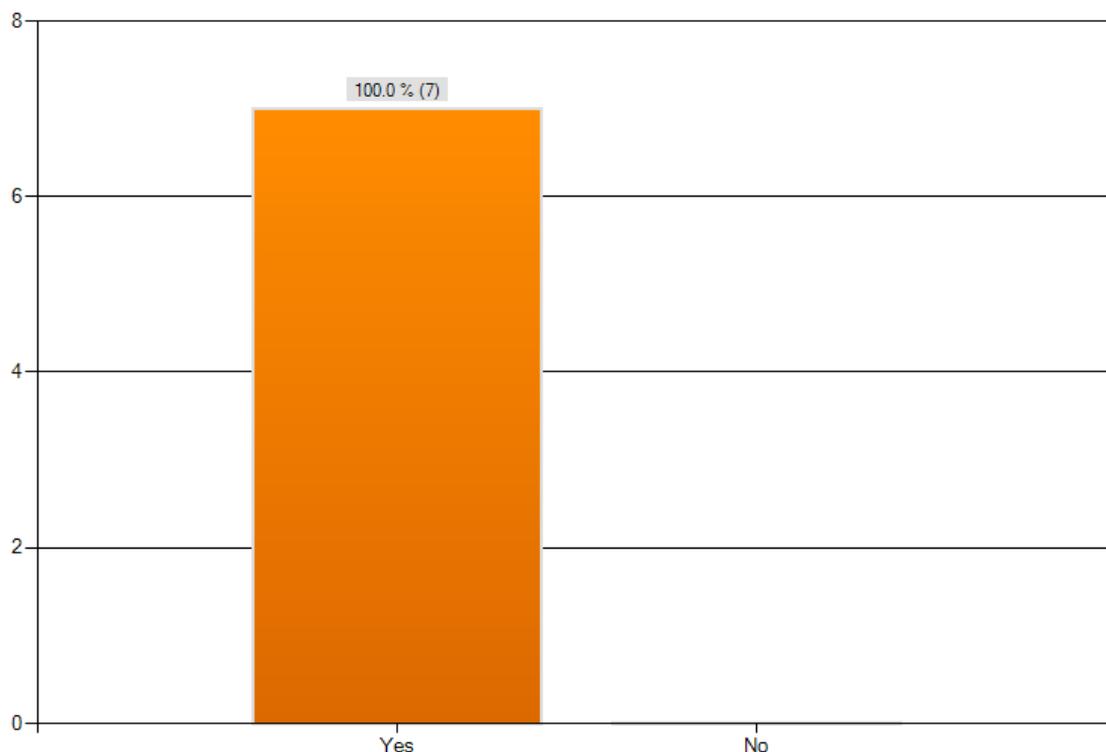
To what extent are environmental organisations involved with the Hindu associations?



Response	57.1% of the leaders said the environmental organisations were partly involved with the Hindu organisations; 28.6% said they were not involved at all and 14.3 % said they were very involved.
Interpretation	A majority of the leaders said the environmental organisations were partly involved or very involved, which is also encouraging as this leads one to believe that the association was already established.

4.1.8 Hindu religious leaders: Question eight

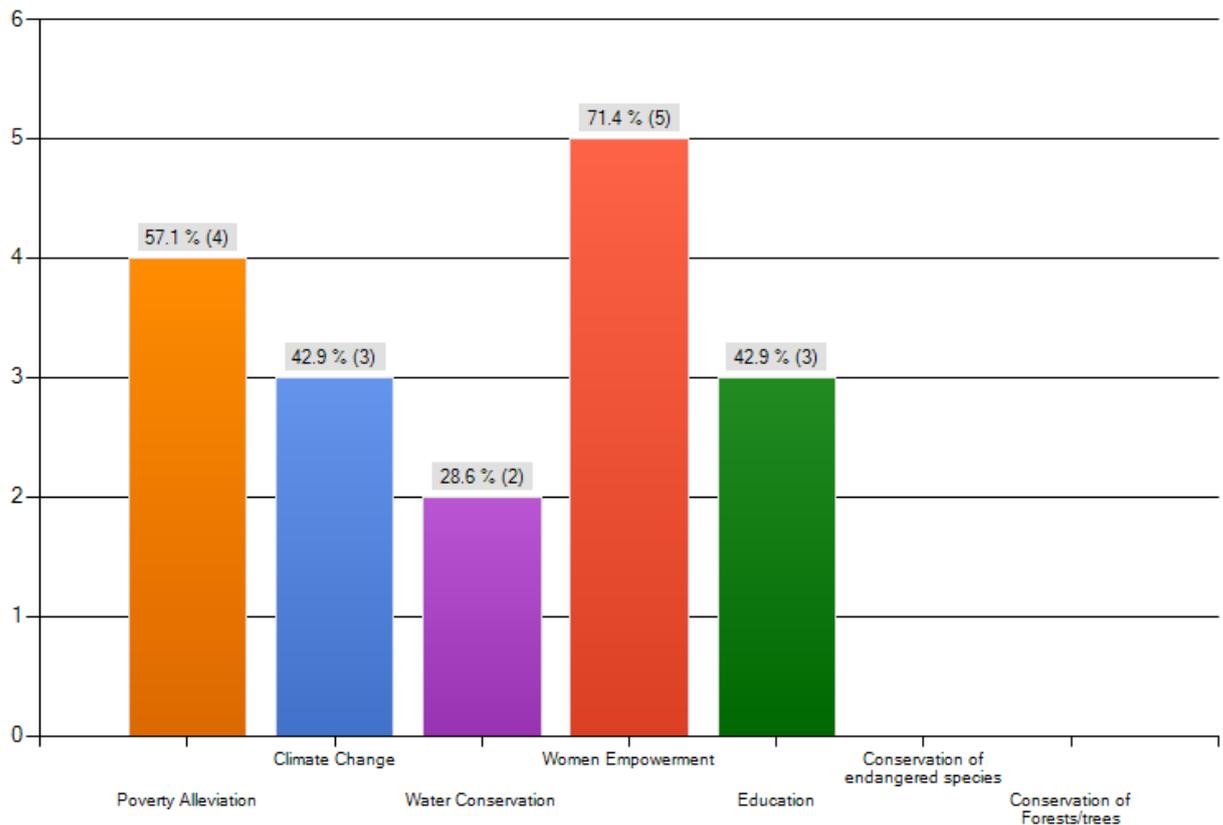
Would you approve of environmental representatives communicating environmental awareness topics at Hindu devotional services



Response	100% of the leaders unanimously said that they would approve of the environmental representatives communicating environmental awareness topics at the Hindu devotional services.
Interpretation	This is also encouraging, as was stated before. If the leaders of the temple and associations approve such actions, it would be quite possible having the Ecotent campaign or more environmental campaigns and topics at the devotional services.

4.1.9 Hindu religious leaders: Question nine

Which of the following environmental challenges has your association or temple positively contributed to the most, over the past ten years?



Response	71.4% said that women empowerment was contributed to most by the Hindu associations; 57.1 % said it was poverty alleviation; 42.9 % said climate change; 42.9% said education and 28.6% said water conservation. 0% said that conservation of forests/trees or endangered species were contributed to.
Interpretation	For this particular question there were multiple answers. Interesting enough it appeared that women empowerment was contributed to the most. This would be further explored in an interview with Mr Krishna Govindsamy the Secretary of the Eastern Region Council - Tamil Federation of Gauteng (Govindasamy, 2013). Also, endangered species and conservation of trees and forests were not contributed to. Perhaps in India this would have been different with the worshipping of sacred groves.

4.1.10 Hindu religious leaders: Question ten

How, in your opinion, do you feel Hindu religious teachings can further improve the way in which South Africans treat the environment? What can Hindu associations do? What are the steps to be taken and which associations or individuals would you need assistance from in order to get there?

- “We need to create awareness, first amongst Hindu's, which can then be translated to incorporate learning to the broader public and organisations.”
- “More teaching at grass roots level”
- “Awareness and education is necessary at all levels and in all sectors; a national religious forum for all religions to focus on this important aspect that will determine the life quality of our future generations.”
- “We as the brahma kumaris have an environmental policy and each centre is encouraged to continue with the education of its members and the public.”
- “Highlight the mantras (verses) of the Hindu scriptures that alert us to take care of the environment.”
- “Explanations is necessary of scriptural teachings and philosophy and also environmental experts to give talks and lectures.”
- “Through education.”

Response	Each leader responded to this question regarding how we can improve the way South Africans treat the environment. All leaders considered that education and spiritual teachings could help to create environmental awareness.
Interpretation	The view about creating awareness amongst Hindus first, and then later translating the learning to the broader public, was most thought provoking. Once the environmental awareness lessons in these scriptures are brought back to everyday life and a way of life, it can be practiced to such an extent that these values become inherent and no longer dogmatic.

4.1.11. Hindu Religious Teachings and the “Doubled Edged Sword”

Some teaching and practices of Hinduism have a negative influence on the environment, as Tomalin (2006: 100) refers to the social aspects of environmentalism where “dharma” refers to the Hindu’s duties. On the other hand some of the religious teachings support social values, e.g. sharing food with the poor; others, again, justify the caste system and say that only the elite were entitled to the best, which is based on the experiences of one’s previous life. Some Hindu practices can only be seen as environmentally detrimental such as the sacrificing of animals, the caste system, which has an influence on the social environment, and pollution of rivers and streams.

One of the major Hindu celebrations is the reverence of Lord Ganesha, called Shree Ganesh Chaturthi. At such events idols of Lord Ganesha, made of plaster of Paris, plastic or cement, are offered to rivers or streams. Toxic paints are also used to decorate these idols which have a negative influence on the environment and attract the principles of Lord Ganesha to a lesser degree (Saptami & Varsha, 2009). Furthermore the idols have to be bulldozed from rivers or streams to reduce pollution, which is denigration to Lord Ganesha and does not help the spiritual significance of worshipping (Saptami & Varsha, 2009). Similar ironic displays are found in the pollution of the River Ganges during ceremonies (Drew, 2012), and unhygienic practices in the worshipping of rats (Kala & Sharma, 2009:87; Charan, 2009).

More callous and inhumane practices are depicted in the sacrificial rituals followed by some Hindu sects. The sharpening of blades, chaotic crowds and blood curdling cries of goats can be heard in the most disturbing event of the world 's biggest animal sacrifice held in Nepal (Anon, 2009), which is available on video (AFP News, 2009). This two day event takes place once in five years and is called the Gandhimai festival honouring the Goddess of Power. Hindu devotees believe that the sacrifice will bring about prosperity. To describe the savage act that happened in 2009: The head priest had launched the event with the sacrifice of two rats, two pigeons, a rooster, a lamb and a pig. Thereafter the crowd rushed to a nearby field where 250 "sword-wielding butchers" had slaughtered 20 000 buffalo (Anon, 2009). Can we sit back and accept that this is a religious right? One only has to view the video (AFP News, 2009) to understand that there is no sacrificial act; the cold heartless look in the butchers' eyes mean that there is no emotion involved in the world's 'biggest animal sacrifice' held in Nepal.

The double-edged sword is painfully raised and the daunting irony is: "Is this Sacrifice or Sacrilege?" The word "sacrifice" means "Giving up something valued for the sake of something else." (OEMD: 487.) How could these defenceless animals be considered of value in such an easy offering? The repetitive trancelike state of the cold-hearted butchers is completely devoid of emotion, let alone that of the villagers placing the cattle before their slaughterers. One has to wonder if they understand the reasoning behind the savage act: are they following out of ignorance and deceiving themselves into believing that this act is that of a true Hindu? This revolting episode has usurped the teachings of true Hindu teachings and is a glaring example of where there is a need for education. A divine intervention by religious leaders and environmentalists would be legendary to curb these sacrilegious massacres.

Although it would have been interesting to include related questions to sacrificial ceremonies in the survey they would have been too sensitive in nature to broach at that point of the study. A follow-up interview with Krishna Govindasamy, the Secretary of the Eastern Region Council - Tamil Federation of Gauteng (TFG) had shed some light on the topic. Below is the questions and response posed to Krishna Govindasamy (questions one and three, in particular, relate to the double-edged sword concept) (Govindasamy, 2013).

Question One: “If we were to introduce an awareness campaign and a pledge of such a nature that everyone can make a conscientious effort to change one aspect of their lives, which religious event would be most appropriate?” (Naidoo, 2013.)

Response: “The Kavady Festival held in January would be the most appropriate event to launch an awareness campaign as this function attracts the biggest number of devotees country-wide.” (Govindasamy, 2013.)

Question Three: “Some of the Hindu rituals actually have negative impact on the environment, e.g. the placing of unnatural, non-degradable objects into the rivers or sea. How does one overcome this and can you provide examples of how the Benoni Temple has substituted such objects with more natural ones? How do we communicate this further?” (Naidoo, 2013.)

Response: “Most of the rituals we currently use are made of soluble material like clay or sugar that will dissolve once these are placed in rivers or the sea. We are planning to hold a workshop at the beginning of 2014 where we will have all the main role players, including the priests that perform all prayers, to discuss a way forward. Included on the agenda will be environmental issues and its impact.” (Govindasamy, 2013.)

This response from Mr Krishna Govindasamy is encouraging regarding the inanimate objects used in rituals being replaced by clay or sugar that will not negatively influence the environment.

4.2 Response rates: Hindu devotees

This chapter will provide response rates of the target audience and a graphic representation of the results obtained from the questionnaire for the Hindu devotees. All results are further interpreted from the graphs.

The table below summarises the target audience population, % response from target audience and % response rate for the Hindu devotees.

Questions to Hindu Devotees	Target Audience Population	% Response from Target Audience	No. Responded to question	% Response Rate (From target audience that responded)
Question 1	121	52.89%	63	98.44%
Question 2	121	52.89%	64	100%
Question 3	121	52.89%	64	100%
Question 4	121	52.89%	64	100%
Question 5	121	52.89%	63	98.44%
Question 6	121	52.89%	63	98.44%
Question 7	121	52.89%	64	100%
Question 8	121	52.89%	64	100%
Question 9	121	52.89%	62	96.88%
Question 10	121	52.89%	64	100%

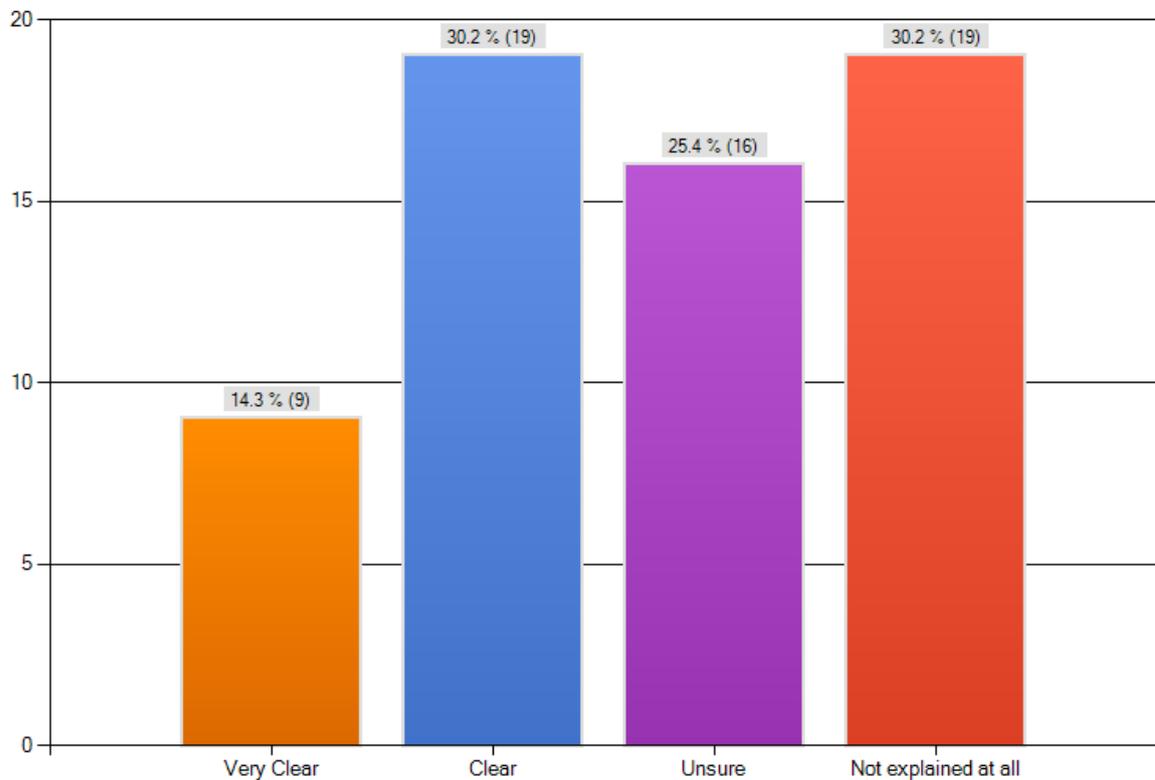
Table 4: Response from target population – Hindu religious devotees

<https://www.surveymonkey.net/MySurveys.aspx>

The subheadings 4.2.1 to 4.2.10 will analyse each question from the questionnaire to the Hindu religious leaders. The results are expressed in both values and percentages.

4.2.1 Hindu devotees: Question one

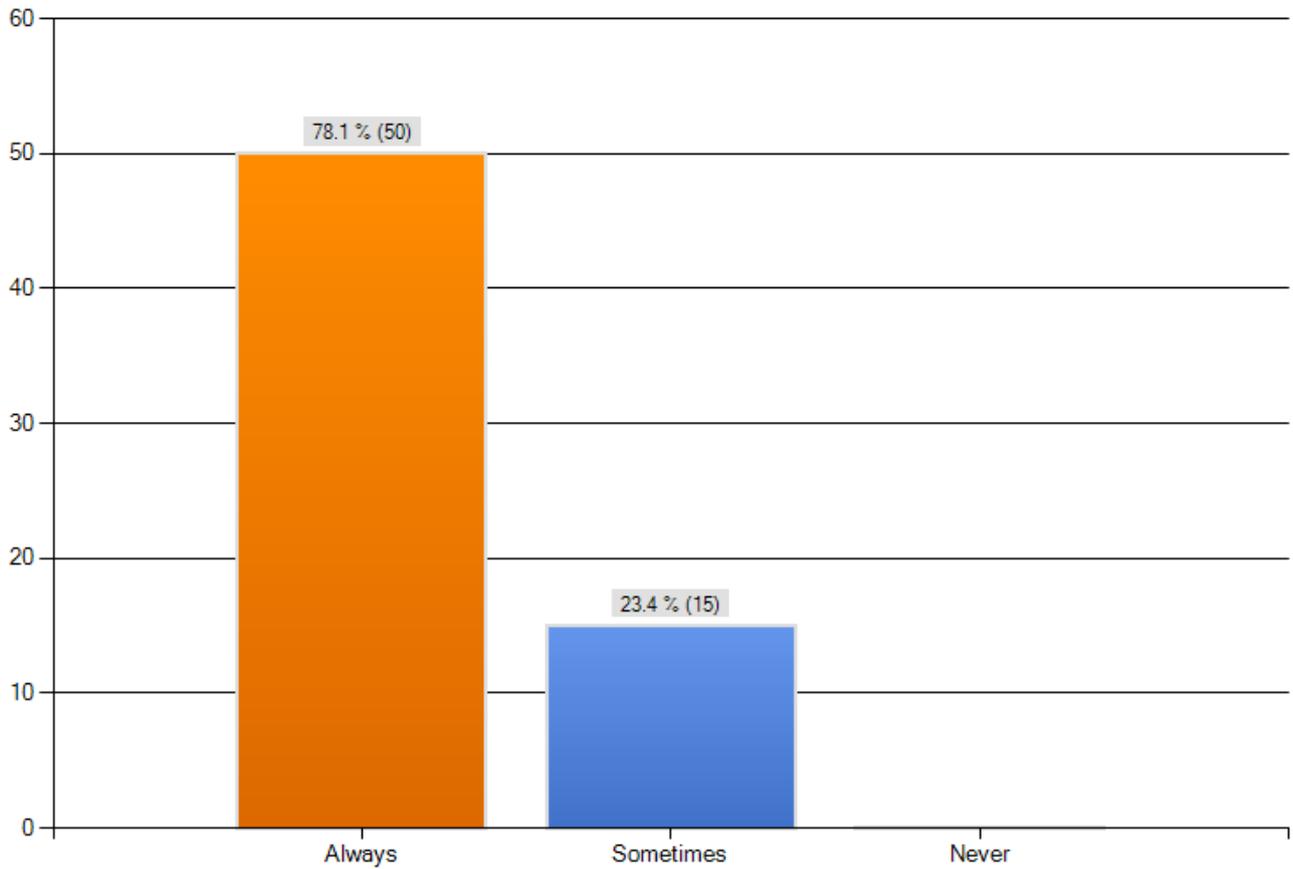
How clearly is the link between environmental conservation and Hinduism explained at the Hindu temples ?



Response	14.3% of the devotees said that the explanation at the temples regarding the link between environmental conservation and Hinduism was very clear, 30.2% said it was clear, 25.4% said they were unsure and 30.2% said it was not explained at all.
Interpretation	It is quite apparent that the majority of the devotees said that they were unsure and that it was not explained at all. The conclusion here is that the link is not clearly understood, which means that there is a gap regarding the communication of the significance of Hinduism and the environment.

4.2.2 Hindu devotees: Question two

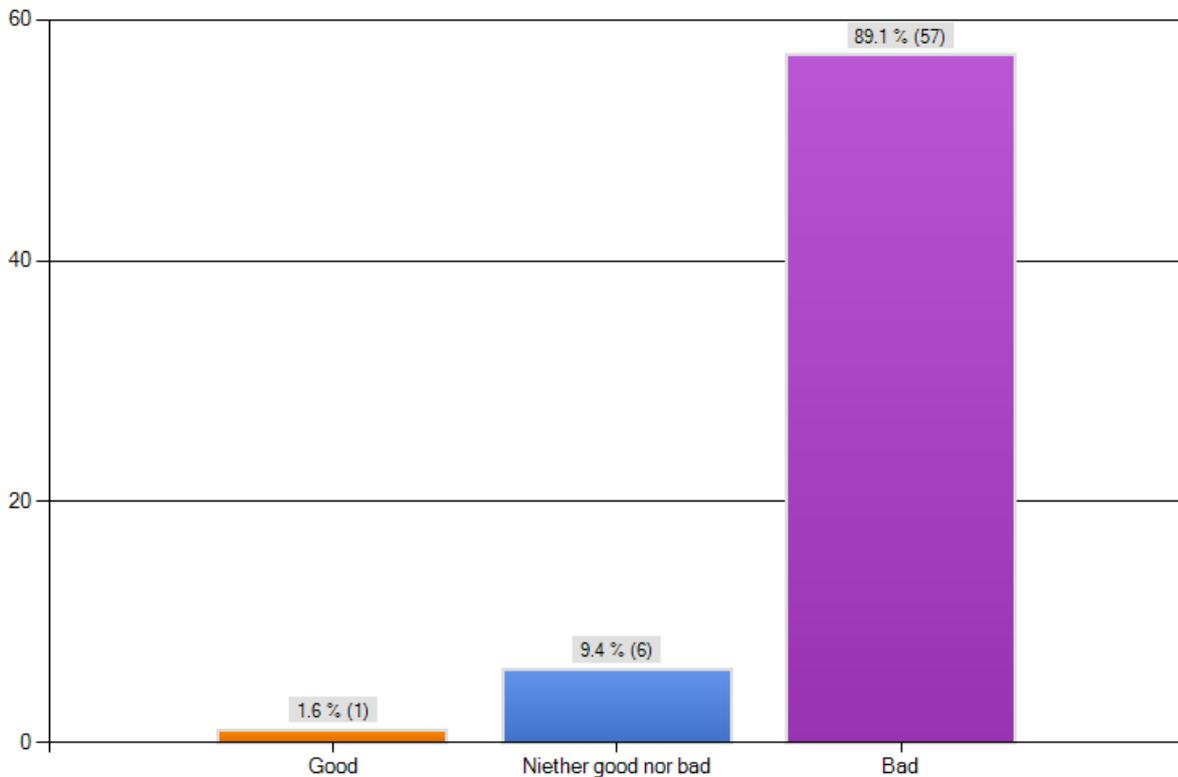
Do you practice energy conservation at home or work or school by switching off lights that are not in use



Response	78.1% said that they always practice energy conservation at home or work or at school, 23.4% said they practice this sometimes and 0% said never.
Interpretation	This indicates that most devotees are aware of energy conservation and are practicing it in their everyday lives. This could either be due to the large energy conservation campaigns in South Africa or due to Hindu religious teaching. However, in view of the response to question one above it is safe to assume that the result is due to the former.

4.2.3 Hindu devotees: Question three

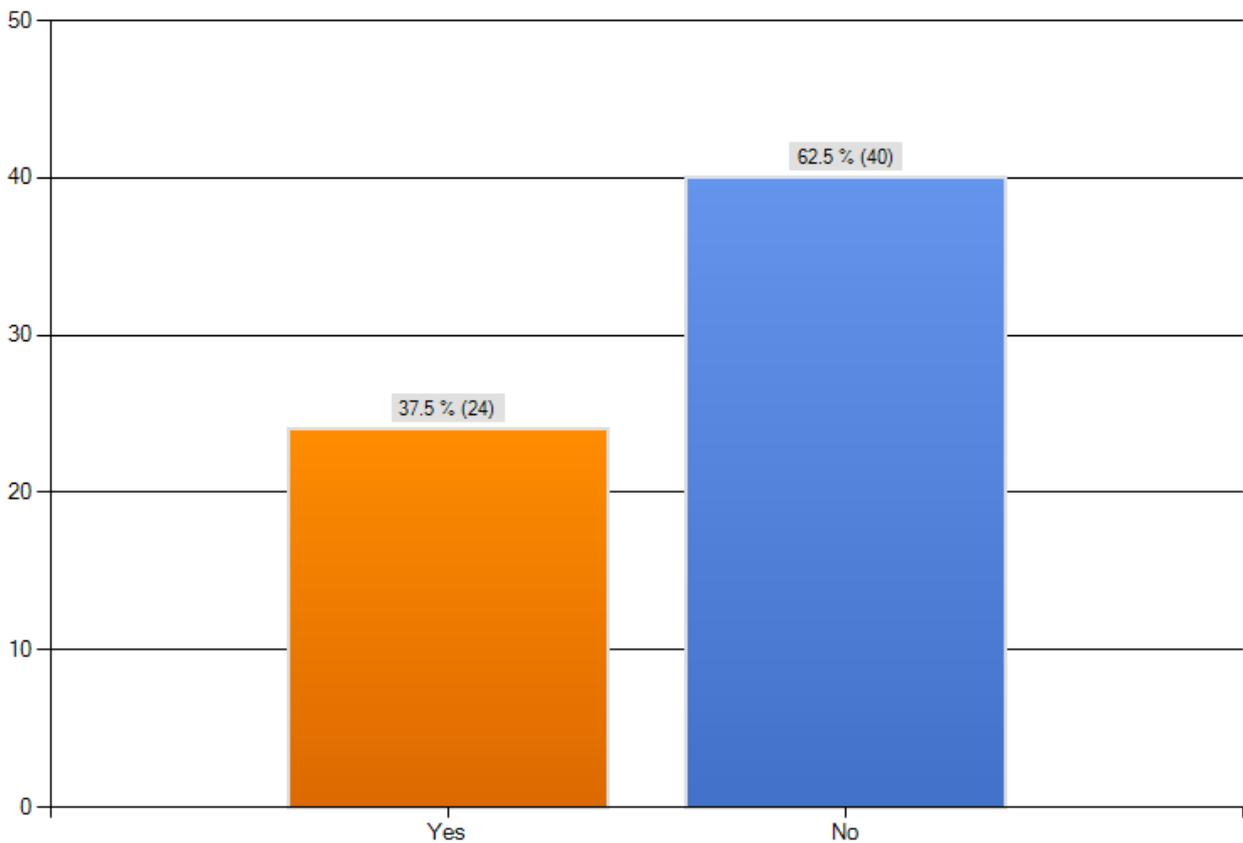
The term "global warming" is often used to refer to the idea that the world's average temperature may be about 5 degrees Fahrenheit higher in 75 years than it is now. Do you think global warming is :



Response	1.6% said that global warming is good, 9.4% said that global warming is neither good nor bad, and 89.1% said it was bad.
Interpretation	This question was intended to gauge the level of environmental awareness amongst the devotees; so here again it proves that there is a high level of awareness when it comes to global warming. It is debatable, again, whether it is due to other media awareness or religious teachings of Hinduism; however, judging from the results of question one above it would be safe to assume that it is due to the latter.

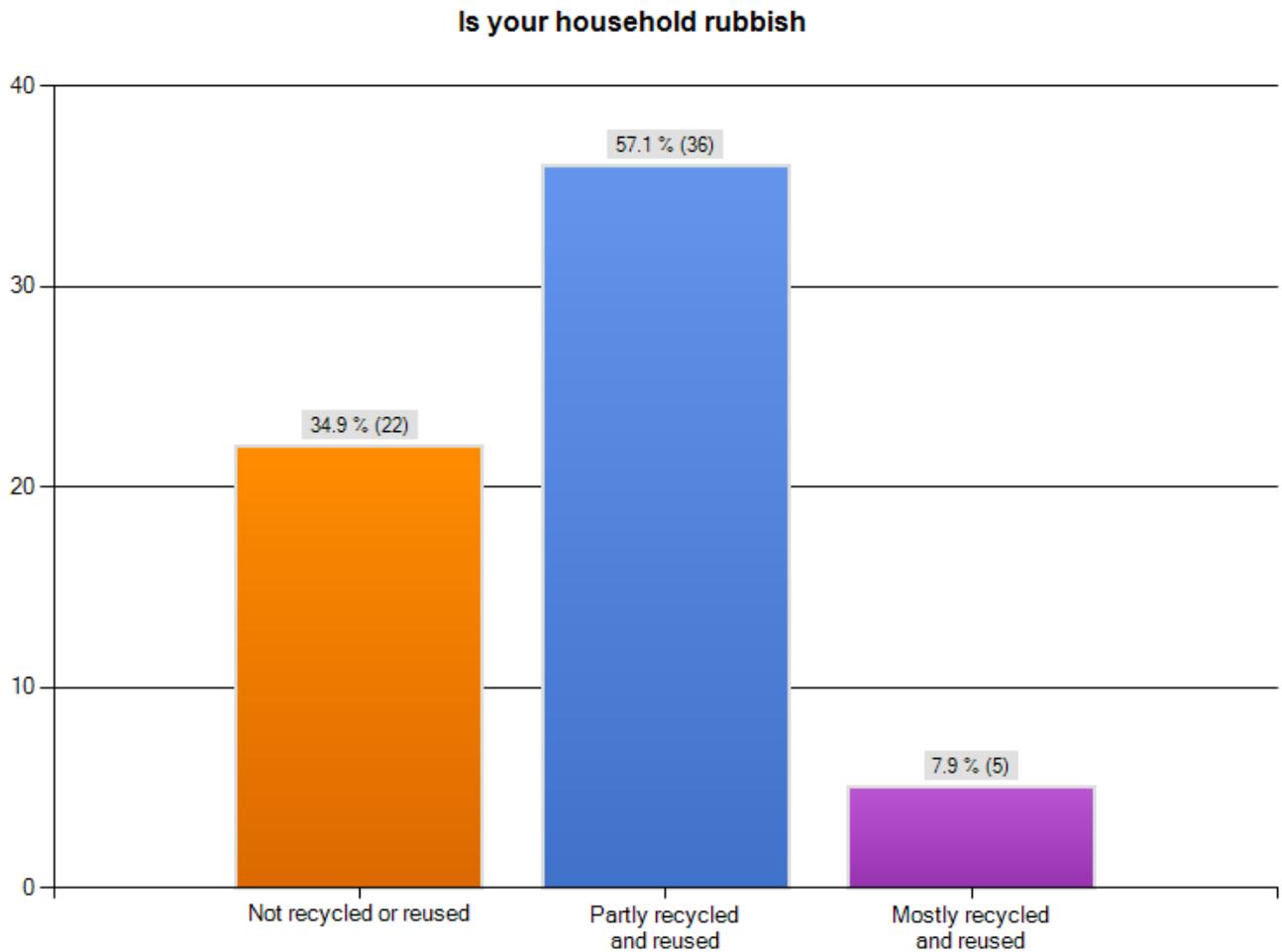
4.2.4 Hindu devotees: Question four

In your opinion are Hindu devotees lifestyles consistent with Hindu religious teachings with reference to the environment



Response	37.5% of the Hindu devotees agreed that the Hindu devotees' lifestyles are consistent with the Hindu religious teachings with respect to the environment, while 62.5% disagreed that the lifestyles were not consistent with the religious teachings.
Interpretation	A majority of devotees say that Hindu devotee lifestyles are not consistent with the teachings in terms of the environment. Interestingly enough this perception is congruent to that of the Hindu religious leaders' lifestyles.

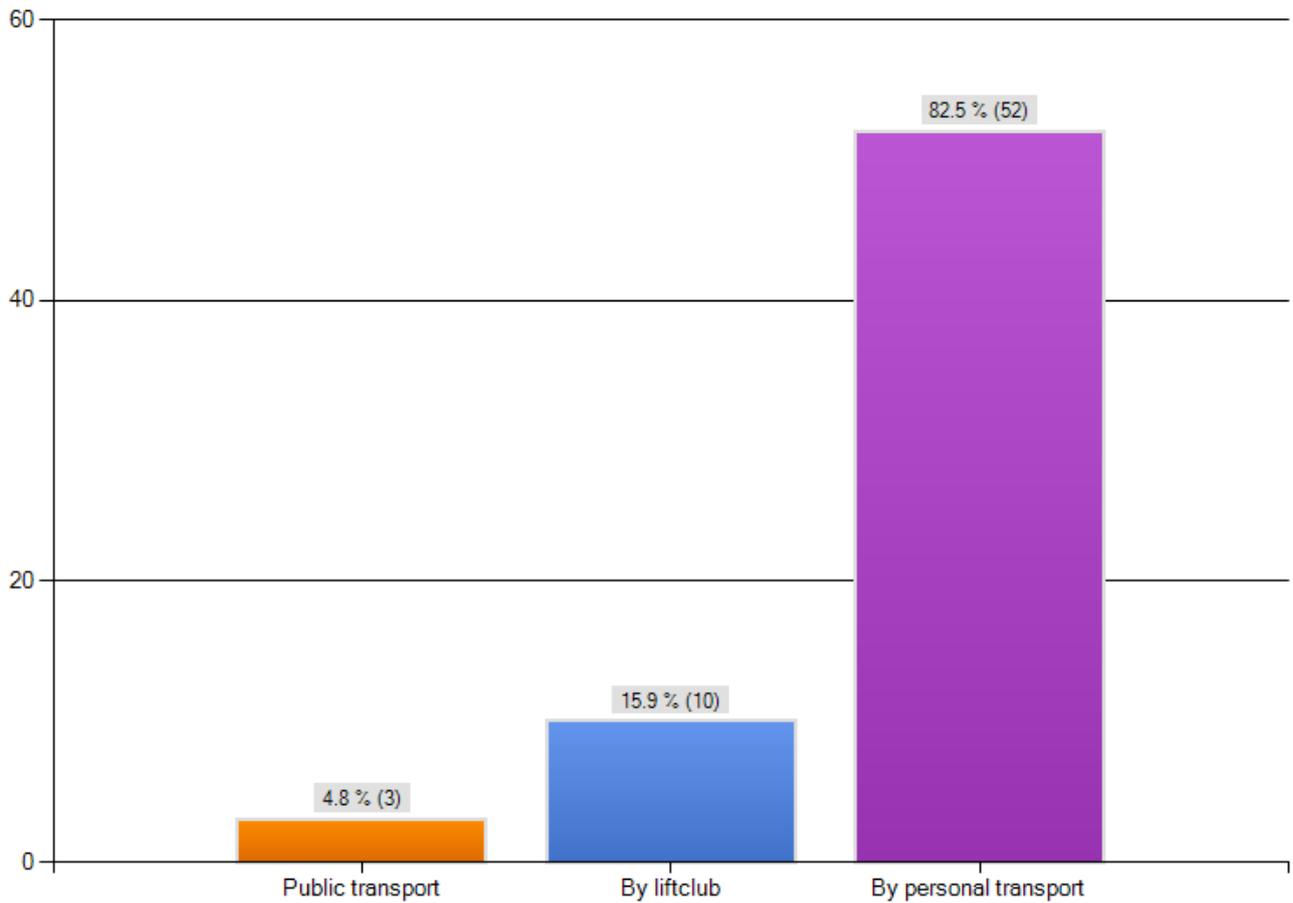
4.2.5 Hindu devotees: Question five



Response	34.9% of the devotees said that their domestic waste was not recycled or reused, 57.1% said that it was partly recycled and reused and 7.9% said that it was mostly recycled and reused.
Interpretation	A majority of the Hindu devotees were practicing some form of reusing and recycling their waste. There is room for improvement in encouraging the devotees to reuse and recycle as was seen with the Ecotent campaign, and if the link between Hinduism and environmentalism was explained more clearly.

4.2.6 Hindu devotees: Question six

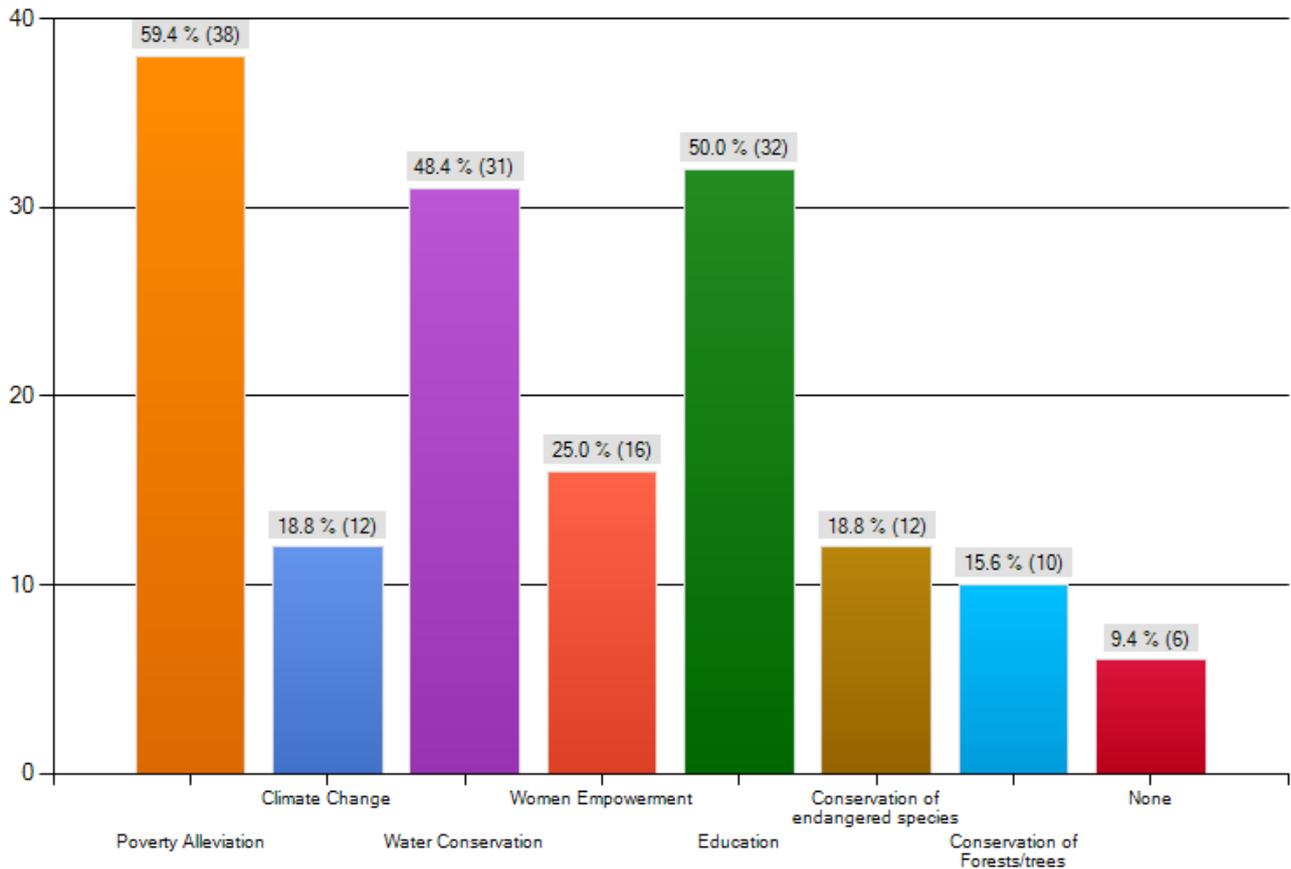
Do you travel to work or school by



Response	4.8 % said that they travel to work/school by public transport, 15.9% by lift club and 82.5% by personal transport.
Interpretation	Most of the devotees use private transport which does not augur too well for the carbon footprint. This could also be due to the fact that in this area public transport may not be of the safest mode and with modernisation it is common to find both spouses working non-routine hours and finding it more convenient to use personal transport. This question could also be further explored to find more conclusive reasons in a further study.

4.2.7 Hindu devotees: Question seven

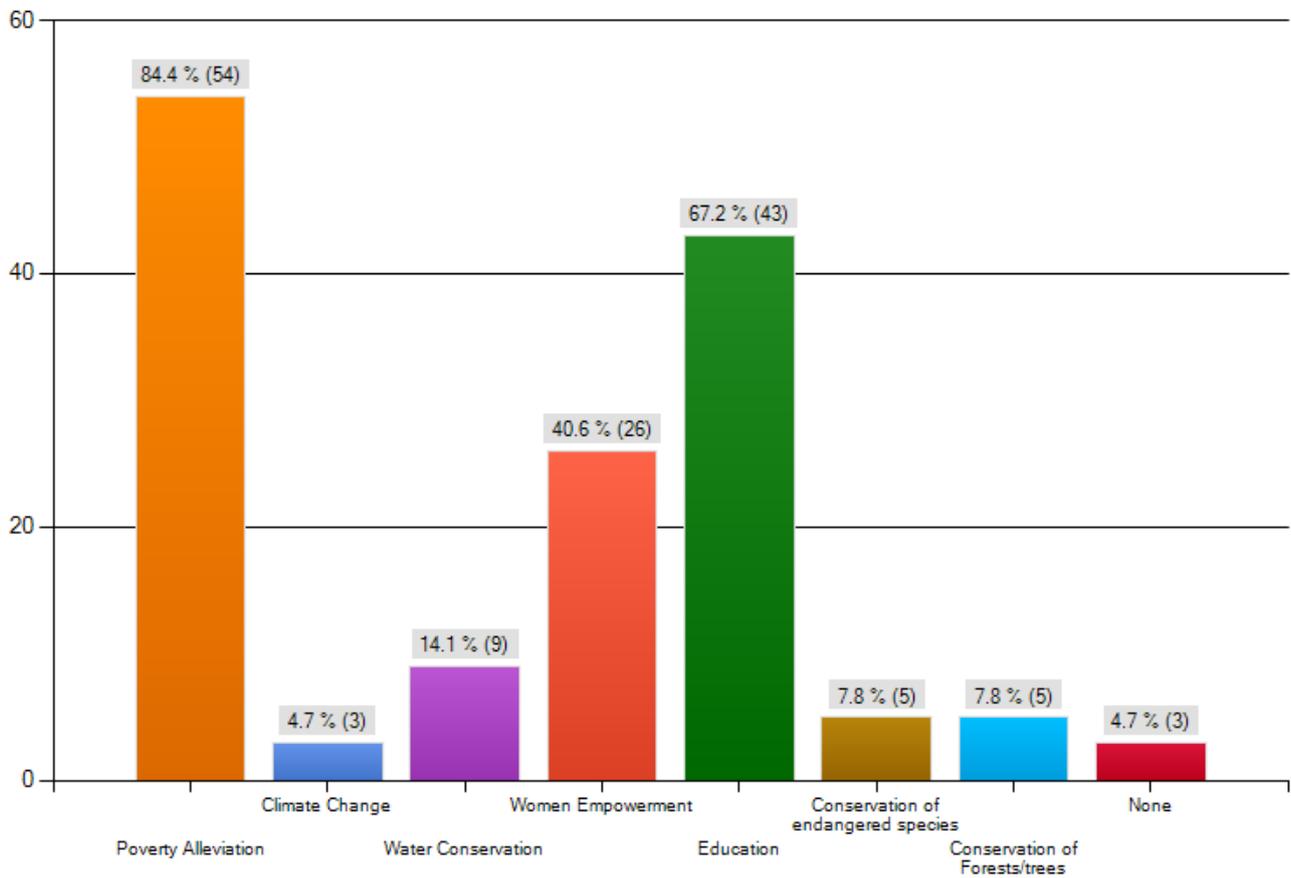
Which of the following environmental challenges have you personally contributed to the most, over the past ten years?



Response	What contributed most to environmental challenge was poverty alleviation 59.4%; education 50%; water conservation 48.4%; women empowerment 25%; climate change 18.8%; conservation of endangered species 18.8% and forests and trees 15.6%, while 9.4% devotees said they contributed to no environmental challenge.
Interpretation	It was also interesting to see that poverty rated highest and women empowerment 4 th highest. From the results above (4.1.9) it can be seen that the associations contributed the most to women empowerment and poverty alleviation. Devotees (from 4.2.7 above), in their personal capacity also contributed to endangered species and preservation of forests/trees. It indicates that the Hindu associations may not directly influence devotees on their environmental contributions.

4.2.8 Hindu devotees: Question eight

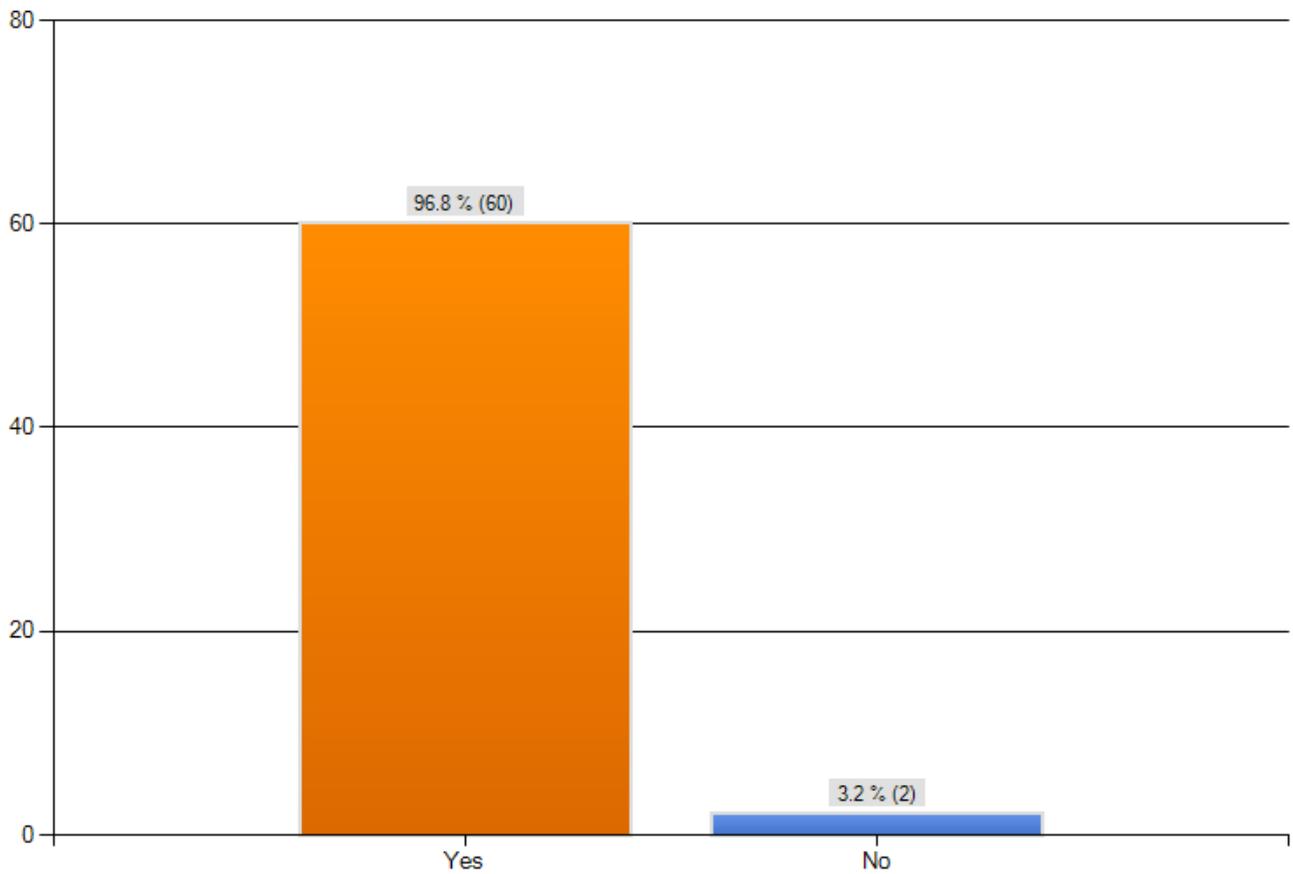
Which of the following environmental challenges has your association or temple positively contributed to the most, over the past ten years?



Response	84.4% said poverty alleviation was most contributed to by the Hindu association; 67.2% to education; 40.6% to women empowerment; 14.1% to water conservation; 7.8% to the conservation of endangered species; 7.8% to conservation of forests/trees; 4.7% to climate change and 4.7% said none.
Interpretation	This perception was closer to what the devotees had contributed to in the personal capacities and differed from what the religious leaders had said regarding the contributions from the associations.

4.2.9 Hindu devotees: Question nine

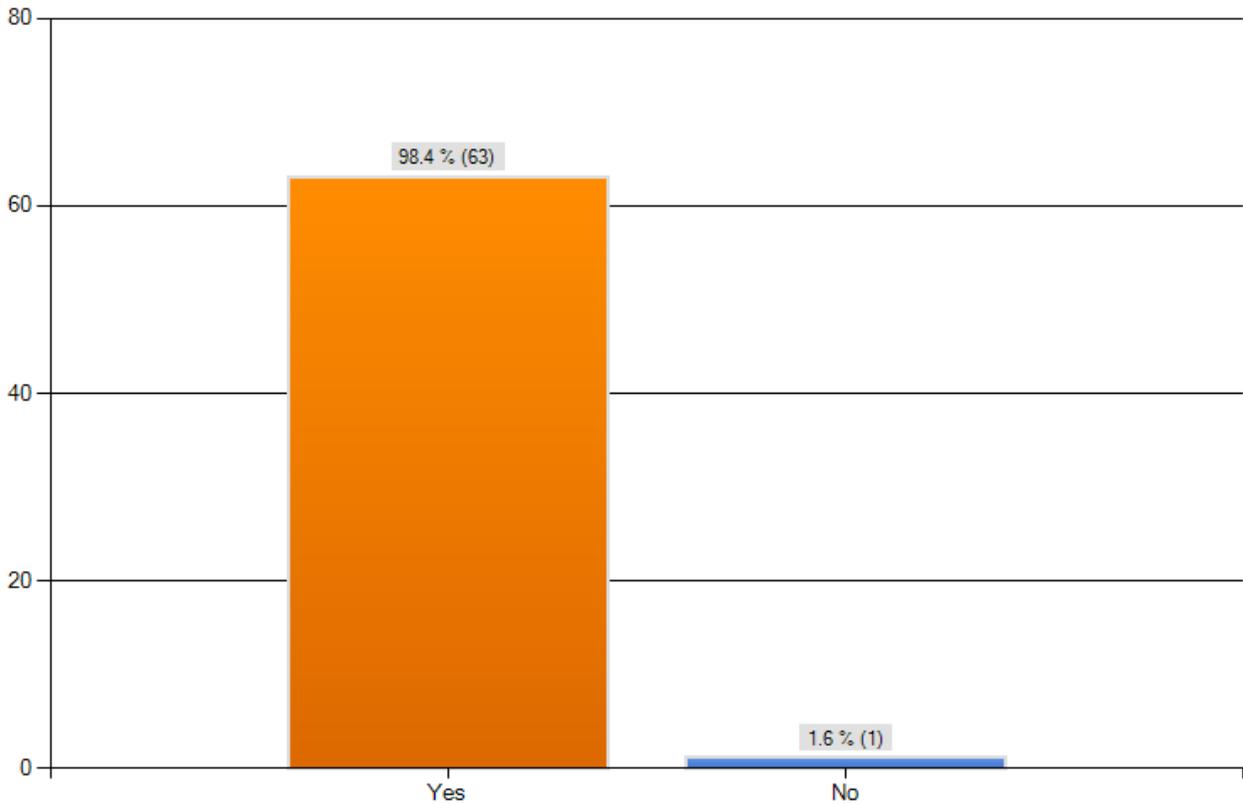
Do you think it would be beneficial to you and the environment if environmental awareness topics at Hindu devotional services were communicated?



Response	96.8% said yes, it would be beneficial to them and the environment if environmental topics were communicated at the devotional services and 3.2 % said no, it would not be beneficial.
Interpretation	This is encouraging that the devotees do see that it would be beneficial to themselves and the environment if environmental topics became part of the Hindu services. This is also in alignment with the opinion of the Hindu religious leaders.

4.2.10 Hindu devotees: Question ten

If we as Hindu devotees to this temple/association were to pledge to change one aspect of our lifestyle (that aspect is left up to the individuals choice) to help our environment would you be willing to partake in it?



Response	98.4% of the devotees responded that, if they were to pledge to change one aspect of their lifestyle, they would be willing to participate in it. 1.6% of the devotees said that they would not be willing to participate in the pledge.
Interpretation	The pledge, similar to the Ecotent, can become a reality in Benoni, South Africa, and could be explored in further studies on this topic.

4.3 Summary on Hindu religious leader survey results

- A majority of the leaders said that the Hindu Religious associations were partially aware of the environmental challenges SA faces.
- A majority of the religious leaders felt that there was only a slight involvement from Hindu associations in terms of contributing positively towards the environmental crises.
- 100% of the leaders agreed that nature was completely entwined in the Hindu religious scriptures.
- A majority of the leaders said that the link between Hinduism and the environment was communicated only during certain prayers or gatherings, or very rarely.
- 100% of the leaders agreed that there was an opportunity to create more environmental awareness through religious teachings at devotional services and prayers.
- A majority of the leaders said that the Hindu lifestyles were slightly consistent or not consistent with the religious teachings.
- A majority of the leaders said that the environmental organisations were partially involved or very involved.
- 100% of the leaders unanimously said that they would approve of the environmental representatives communicating environmental awareness topics at the Hindu devotional services.
- The environmental challenge that was most contributed to by the Hindu association was women empowerment, which was linked to the Millennium Development Goals.
- All leaders provided the same viewpoint regarding more education and awareness about the environment being communicated at Hindu religious associations.

4.4 Summary on Hindu devotees survey results

- The majority of the devotees said that they were either unsure about the explanation at the temples regarding the link between environmental conservation and Hinduism being clear, or that the link between Hinduism and environmentalism was not explained at all. The conclusion here is that the link is not clearly understood, which means that there is a gap regarding the communication of the significance of Hinduism and the environment.
- Most devotees are aware of energy conservation and are practicing it in their daily lives. This could either be due to the large energy conservation campaigns in South Africa, or due to Hindu religious teaching. However, in view of the response to question one above it is safe to assume that the result is due to the former.
- There is a high level of awareness when it comes to global warming amongst the devotees. This could possibly be due to the media coverage rather than Hindu religious teaching.
- A majority of devotees say that Hindu devotee lifestyles were not consistent with the teaching in terms of the environment. Interestingly enough this perception is congruent to that of the Hindu religious leaders.

- A majority of the Hindu devotees were practicing some form of reusing and recycling their waste. There is room for improvement in encouraging the devotees to reuse and recycle, as was seen with the Ecotent campaign, and if the link between Hinduism and environmentalism was explained more clearly.
- Most of the devotees use private transport which does not augur too well for the carbon footprint. This could also be due to the fact that, in this area, public transport may not be the safest mode and with modernization it is common to find both spouses working non-routine hours and find it more convenient to use personal transport. This question could also be further explored to find more conclusive reasons in a further study.
- Devotees said that the environmental challenge that they contribute to most in their personal capacities is poverty, with women empowerment fourth highest. According to the leaders the associations contributed most to women empowerment with poverty alleviation the second highest. Devotees in their personal capacity also contributed to endangered species and forests/trees. It indicates that the Hindu associations may not directly influence devotees on their environmental contributions.
- This perception of the devotees regarding what the Hindu associations had contributed to was closer to what the devotees had contributed to in their personal capacities and differed from what the religious leaders had said regarding the contributions from the associations. It can be deduced that there is a lack of communication between the religious leaders and the devotees regarding the environmental challenges that the Hindu associations are in support of. It also indicates that there is an opportunity for the Hindu associations to use a campaign similar to the Ecotent to support a particular environmental challenge as devotees are already contributing to challenges in their personal capacity and use the opportunity to gain more deep-rooted commitments and inherent values on the environment.
- A majority of the devotees does see that it would be beneficial to themselves and the environment if environmental topics became part of the Hindu religious services.
- 98.4% of the devotees responded that, if they were willing to pledge to change one aspect of their lifestyle in support of the well-being of the environment, they would be willing to participate in it.

Chapter 5: Discussion

Each research question will be referred to in this chapter and further discussed based on the literature review and survey. Questions 5.1 to 5.4 were research questions based on the literature review.

5.1 What is the definition of Hinduism?

Hinduism can be traced back to its origins when an Indo-European race, called the Aryans, invaded the indigenous people of Northern India known as Dravidians in 1500 BCE and replaced the Indus Valley civilisation (Kirkland, 1999; Johnsen, 2009). A Hindu is anyone born into a Hindu family who accepts the Veda (Hindu Bible) as the source of his or her tradition.

5.2 What are the Hindu teachings regarding the environment?

This was best encapsulated in Dr Karan Singh's statement when he expressed the Hindu viewpoint regarding the environment in 1986. (WWF, 1986). He said that humankind did not arrive fully formed on earth to be dominant over the other life forms, but rather that humans evolved from the other life forms and was therefore linked to the universal creation. He referred to the teaching from the holy scriptures of the Yajurveda that no person should kill animals as animals were helpful to all. Instead, by serving them, one should attain happiness. All forms of life, including animals and insects should be revered. He urged that the ancient Hindu tradition needed to be nurtured in this contemporary age. He quoted the ancient Hindu dictum: "The Earth is our Mother and we are all her children." (WWF, 1986:10.)

5.3 What is the correlation between Hindu philosophies and the environment?

The conceptualisation of nature in the Indian worldview, specifically in Hinduism, is illustrated to a great extent by mythical, cultural narratives and rituals, as is captured in the Bhagavad Gita. The oral histories of Hinduism are depicted according to Baidur (1999) in natural elements and natural objects, especially water; rocks and trees and do not depict human architectures of human beings. This is also supported by (Vijayalakshmi, 1993:2) who explains how nature was personified according to Hinduism and gave rise to deification. The concept of deification alone is acceptable; however this unfortunately has led to the double-edged sword concept where inanimate objects depicting deities have led to the pollution of the environment and ironically the denigration of the deities ((Saptami & Varsha, 2009; Drew, 2012; Kala & Sharma, 2009:87; Charan, 2009). Hindus consider their religion to be eternal because it is not based on man's preaching but on the eternal laws of nature; time is cyclical and not progressing forward (Johnsen, 2002: 8-

10). This is also in alignment with the Gaia Hypothesis as discussed in chapter two (Miller, 1989; Barrotta, 2011; Cooper, 1998:166). Nature is revered in many ways and as Kala and Sharma (2010) and Fowler-Smith (2009) elaborate there is a spiritual relationship between animal, plant and man. The manner in which tree worshipping in Rajasthan, for example, takes place, results in the preservation of trees and positively enhances the social culture and economic perspective.

The worshipping of animals, known as zoolatry (Kala & Sharma, 2010:87; Krishna *et al.*, 2008) has been practiced by Indian Hindus since through ages. With the intention of demonstrating affection towards nature a number of animal species are coincidentally conserved. Certain natural ecosystems, known as “sacred groves” or “orans”, are protected by the local communities due to religious beliefs and traditions that have passed on from generation to generation. Sacred groves could be defined as patches of vegetation that could be from a few trees to forests of several acres (Kala & Sharma, 2010:87; Fowler-Smith, 43-44; Kent, 2009:2). These sacred groves could have been dedicated to local deities or tree spirits. In a nutshell: Nature is deeply entwined in Hinduism, the famous Hindu saying encapsulates this message: Earth is my mother, I am her son.” (WWF, 1986:10; Vijayalaksmi, 1993:44.) This is also the philosophy of James Lovelock, an English scientist who was the founder of the Gaia Hypothesis. “Gaia”, named after the Greek Goddess, is the name that Lovelock gives the Earth. The Gaia Hypothesis claims that the earth, Gaia, is alive and has a self-regulating system (Miller, 1989). All life forms of the planet are part of Gaia and in their diversity co-evolve and contribute interactively, not for their own prosperity and growth but for a larger whole called Gaia (Barotta, 2011; Miller, 1989).

5.4 How do the Hindu religious teachings positively influence the social; economic and ecological environment?

With reference to the Bishnoi community mentioned in chapter two the actual worshipping of trees and these sacred groves have resulted in balancing the three pillars of sustainable living.

Social: Social aspects of Hinduism are borne from what Hindus term Dharma, i.e. one’s social duties. If one does good deeds on earth, one can free oneself of one’s previous life’s debts. By nurturing trees and growing fruit and distributing them one is looking after the social environment (Kala & Sharma, 2009:88; Fowler-Smith, 2009).

Economic: Sacred groves e.g. display economic importance as they present a rich source of fodder; fuel; timber; etc. Such biodiversity rich areas can provide a source of income (Kala & Sharma, 2009:88).

Ecological: With the worshipping of trees; animals and sacred groves, conservation of nature is respected and ensured (Kala & Sharma, 2009:88).

It can therefore be stated from all the literature research that the hypothesis is true : Hindu religious teachings can have a positive influence on environmental ethics and promote environmental sustainability as long as it eliminates the double edged sword nature of Hinduism by educating the Hindu devotees on the negative impacts of their activities on the environment.

Questions 5.5 to 5.6 are based on the survey

5.5 To what extent is the environmental sustainable link in rituals or practices clearly communicated by religious leaders to devotees?

With reference to the responses received from the questionnaires the following can be concluded:

- The majority of the devotees said that they were either unsure about the explanation in the temples regarding the link between environmental conservation and Hinduism being clear, or that the link between Hinduism and environmentalism was not explained at all. The conclusion here is that the link is not clearly understood, which means that there is a gap regarding the communications of the significance of Hinduism and the environment.
- Most devotees are aware of energy conservation and global warming influences. This could either be due to the large energy conservation campaigns in South Africa, or due to Hindu religious teachings. However in view of the response in question one above it is safe to assume that the result is due to the former.
- Both leaders and devotees also share the same perception that the devotees' lifestyles are not consistent with the religious teachings regarding the environment. This can be overcome if environmental organisations can become involved and campaigns, such as the Ecotent, can be introduced. It is also not practical to follow all lifestyles such as that of the Bishnoi community, but if we could just extract the true essence behind the practice one could become grounded once more and follow the philosophy of 'Simple living, Higher Learning'.

5.6 What is the viewpoint of Hindu religious leaders regarding the question whether the religious teachings being clearly communicated?

- The majority of the leaders said that the link between Hinduism and the environment was being communicated only during certain prayers or gatherings, or very rarely. All leaders expressed the same viewpoint regarding the need for more education and of awareness of the environment being communicated at Hindu religious associations.

Chapter 6: Conclusion

The research had explored the origins of Hinduism; the association between Hinduism and the environment and whether these religious teachings were effectively communicated from Hindu religious leaders to Hindu religious devotees. A survey was conducted at the Benoni temple in Gauteng, South Africa to analyse the viewpoints of Hindu religious leaders and devotees.

The literature review provided an insight into the revering of nature by Hindus. Trees and endangered species were worshipped by Hindus in ancient times which coincidentally led to the conservation of the environment (Kala & Sharma, 2010). All these teachings had provided some introspective thought provoking moments which if communicated effectively can create a paradigm shift in our social behaviour

(Jain,2009). All parts of trees are used for the benefit of others, for example fruit for physical strength, roots and herbs for medicine, leaves and flowers for sacred rituals, timber for construction and shelter for travellers. These inherent qualities and virtues are referred to as the dharma of a tree and can be used as a benchmark for human dharmic ecology (Jain, 2009). If we as humans could look at life selflessly and learn from the way trees serve a greater purpose on earth we could view ourselves in a similar light with respect to the environment.

From the survey that was conducted at the Benoni Temple in Gauteng it was found that the majority of the devotees said that the explanation in the temples regarding the link between environmental conservation and Hinduism was not clear, or that the link between Hinduism and environmentalism was not explained at all. Most leaders and devotees agreed that there was a need for better communication and improved environmental awareness. There were also suggestions that environmental organisations could become more involved. If rituals that are so richly entwined with nature lose their essence, this could lead to Hindus following dogmatically instead of forming inherent values, which is the desired outcome.

Dogmatic behaviour is apparent with the ritual of animal sacrifice which I regard as being more sacrilegious. To reiterate: “sacrilege” means to “disrespect something sacred or highly valued” (OEMD: 487). According to Jainism, on no account must life be taken (WWF, 1986: 8-10). The holy scriptures of the Yajurveda *ahimsa* or non-violence state that no person should kill animals as animals are helpful to all; instead, by serving them, one should attain happiness (WWF, 1986:8-10; Kala & Sharma, 2009:87; Krishna *et al.*, 2008). Such brutality and contradictory behaviour to the scriptures can only emanate from ignorance and generations of following a ritual dogmatically, without using the higher levels of cognisance and consciousness. This is a glaring example of where the environmental essence in Hinduism is not being taught to devotees from literate and environmentally conscious leaders. Hindu religious scriptures revere nature yet the practices are quite the contrary where leadership lacks. The calibre of leadership such as the

representatives at the World Wide Fund is desired to overcome this hurdle. It is also encouraging and is not all doom and gloom to see that there is an awareness of the environment when inanimate objects that are detrimental to the environment are being substituted by more natural forms during certain Hindu rituals (Govindasamy, 2013). The next stage of this study would be the practical application as explored in Chauhan *et al.* (2009). The willingness from the Hindu devotees and leaders to participate in an environmental campaign is encouraging and the Secretary of the Eastern Region Council- Tamil Federation of Gauteng, Mr Krishna Govindasamy had already identified the Kavady festival as an ideal event to host the campaign.

Due to the limitations of the study, the research was restricted to Hinduism, however here lays the foundation for further studies in different avenues. Further studies can be conducted to explore the double edged sword in other religions and to substitute ill practices with more favourable ones pertaining to the environment. Further studies can be conducted specifically on animal sacrifice during Hindu religious ceremonies and other religions. Religious leaders should be actively involved in this research and challenged to ensure that change is implemented.

With reference to chapter one of the study, the religious leaders of all backgrounds were synonymous in their message that nature, man and the environment were intertwined. If such leadership and religious teachings were not adhered to and capitalised on, it would be a gross oversight on the part of environmentalists or those of us who are in influential positions. Although the study was limited to Hinduism, religion in general can augment environmental conservation if taught and communicated effectively. The-double edged sword of environmentalism can fall away if Hindu followers could interpret the environmental awareness links in the religious teachings rather than submit to the negative environmental practices in some of the rituals. Inherent values are possible to emanate from the previously dogmatic ones if all religious leaders could amplify the environmental significance of the religion irrespective of which sect it may be belong to.

Reference list

AFP News. 2009. Video of world's biggest animal sacrifice held in Nepal. Nov 25 (Available on internet) <http://video.xin.msn.com/watch/video/worlds-biggest-animal-sacrifice-held-in-nepal/yqa1mq21?cpkey=0091faf2-19af-45df-8c42-048a3f957de2%257c%257c%257c%257c> (Date of access: 16 Nov 2013).

Anon. 2009. World's biggest animal sacrifice held in Nepal. *The Telegraph*: Nov 24 (Available on internet) <http://www.telegraph.co.uk/news/worldnews/asia/nepal/6645024/Worlds-biggest-animal-sacrifice-held-in-Nepal.html> (Date of access: Nov 16).

Anon. 2010. Bishnoi: An eco-theological "new religious movement" in the Indian Desert. *Journal of Vaishna Studies*, 19(1). August (Available on internet) <https://www.google.co.za/#q=journal+of+vaishnava+studies+2010%3BBISHNOI>. (Date of access: August 2012).

Baindur, M. 2009. Nature as non-terrestrial: Sacred natural landscapes and places in Indian Vedic and Puranic thought. *Environmental Philosophy* 6(2) 43-58.

Barrotta, P. 2011. James Lovelock, Gaia theory and the rejection of fact/value dualism. *Environmental Philosophy*, 8(2): 95-113.

Bhaktivedanta Swami Prabhupada. 1998. *The Bhagavad Gita as it is*. Second Edition. India: Mumbai. 1051 p.

Charan, J.K. 2009. The Kaba (Rat) Legend. *The Karnimata*. July 28. (Available on Internet) <http://karnimata.over-blog.com/categorie-11029160.html><http://www.kirkland.myweb.uga.edu/rk/pdf> (Date of access: 16 August 2012).

Chauhan, S., Ramadas, S., Rita, N. & Haigh, M. 2009. Promoting Education for Sustainability in a Vaishnava (Hindu) Community. *Applied Environmental Education & Communication* 8(2): 114-125, Aug 24.

Cooper, D.E. & Palmer, J.A. 1998. *Spirit of the Environment: Religion, value and environmental concern*. London, Routledge. 204 p.

Drew, G. 2012. A retreating goddess? Conflicting perceptions of ecological change near the Gangotri-Gaumukh Glacier. *USRNC* 6(3): 344-362.

Fowler-Smith, L. 2009. Hindu tree veneration as a mode of environmental encounter. *Leornado* 42(1): 43–51.

Govindasamy, K (Krishna_govindasamy@bat.com) 2013. Re: Interview with Secretary of the Tamil Federation of Gauteng-Eastern Region. [Email to: Naidoo, K. (Kirshni.naidoo@basf.com) Nov 04].

Jain, P. 2009. Dharmic ecology: perspectives from the Swadhyaya Practitioners. *Worldviews*. 13: 305-320. (Available on internet) http://www.academia.edu/196019/Dharmic_Ecology_of_the_Swadhyaya_Movement. (Date of access: 16 Nov 2013).

Johnsen, L. 2009. *The complete idiot's guide to Hinduism*. 2nd Ed. New York: Penguin Group. 432 p.

Kala, M & Sharma, A. 2010. Traditional Indian beliefs: A key toward sustainable living. *Environmentalist* 30:85-89, November 10.

Kent, E.F. 2009. Sacred groves and local gods: religion and environmentalism in South India. *Worldviews* 13:1-39 (Available on internet) <https://www.google.co.za/#q=sacred+groves+and+local+gods+religion+and+environmentalism+in+south+india> (Date of access: 13 Nov 2013).

Khan, D.I. 2011. Department of Islamic Studies, Gomal University. Purana: The oldest sacred book of Hinduism. *Journal of Research* 27(1): 143-148.

Kirkland, R. Department of Religion. University of Georgia. 1999. The religious dimension of Indian culture. (Available on Internet) <http://faculty.franklin.uga.edu/kirkland/sites/faculty.franklin.uga.edu.kirkland/files/HINDUISM.pdf> (Date of access: 29 Jun 2012).

Krishna, M., Amirthalingam, M. & Godbole, A. 2008. Sacred animals of Maharashtra (available on internet) <http://www.ecoheritage.cpreec.org/> (Date of access: 15 September. 2012).

Miller, S. 1989. Review of James Lovelock's the Ages of Gaia. (Available on internet) <http://erg.ucd.ie/arupa/references/gaia.html> (Date of access: 16 August 2012).

Muthuraj, S. 2003. Providence in the context of Hinduism: its use in everyday life. Proceedings of the National Conference on Undergraduate Research (NCUR) 2003, University of Utah, Salt Lake City, Utah, March 13-15. (Available on internet) https://tools.bethelks.edu/undergrad_research/files/14/Sophiamuthuraj2006.pdf (Date of access: 01 August 2012).

Naidoo, K. 2012. Survey on Hindu religious leaders and Hindu devotees. July. (Available on internet) <https://www.surveymonkey.net/MySurveys.aspx> (Date of access: 30 Oct 2013).

Naidoo, K. (Kirshni.naidoo@basf.com). 2013. Interview with Secretary of the Tamil Federation of Gauteng-Eastern Region. [Email to:] Govindasamy, K.(Krishna_govindasamy.bat.com) Nov. 02.

Osigwe, U.W. 2004. The Environment and natural rights. Saskatoon, Canada: University of Saskatchewan. (Thesis: Master of Arts). 96 p. (Available on internet) <https://www.google.co.za/#q=osigwe-the+environment+and+natural+rights> (Date of access: 16 November 2013).

OEMD (Oxford English Mini Dictionary). 2007. Oxford, N.Y: Oxford University Press. 648 p.

Ramaswami Aiyar, C.P., Dutt, N., Wadia, A.R., Mujeeb, M., Pal, D., Jerome D'Sousa, S.J. 1999. An introduction to Hinduism. *The Gazetteer of India* (1): Chapter VIII Religion, Nov 17. (Available on internet) <http://www.uni-giessen.de/~gk1415/hinduism.htm> (Date of access: 29 Jul. 2012).

Saptami, S.K. & Varsha, K. 2009. Pollution caused due to incorrect materials and immersion methods used for idols of Shree Ganesh. *Forum for Hindu Awakening*. (Available on internet)

<http://www.forumforhinduawakening.org/understanding/glory-of-hindu-dharma/pollution-caused-due-to-immersion-methods> (Date of access: 16 Nov 2013).

Tomalin, E. 2004. Biodivinity and biodiversity: perspectives on religion and environmental conservation in India. *Numen -International Review for the history of religions*. 51(3):265-295.

Tomalin, E. 2006. Religion and a rights-based approach to development. *Progress in Development Studies*. 6 (2): 93-108.

US State Department's International Religious Freedom Report. 2006. (Available on internet)
http://en.wikipedia.org/wiki/Hinduism_by_country (Date of access: 16 August 2012).

Vijayalakshmi, R. (1993) "Viewpoints: Environmental awareness: The Hindu perspective." *Journal of Hindu-Christian Studies*: Vol. 6, Article 12. (Available on internet)
<http://dx.doi.org/10.7825/2164-6279.1081> (Date of access: 29 July. 2012).

World Wide Fund. 1986. The Assisi declarations: messages on humanity and nature from Buddhism, Christianity, Hinduism, Islam and Judaism. 15 p.