

**Environmental Concern in South Africa: An Analysis of Elite and
Public Attitudes and their Implications for Public Policy**

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Declaration

I, the undersigned, hereby declare that the work contained in this assignment is my own original work and that I have not previously in its entirety or in part submitted it at any university for a degree.

Abstract

South Africa, like so many other developing countries, is confronted with a very complex situation: although large-scale environmental degradation is threatening the future of the country, environmental matters are not regarded as of sufficient importance amongst the general population for them to contribute to environmental improvements. Most of the country's populations, many argue, are simply too poor and too focused on fulfilling short-term survival needs to give priority to the environment.

Employing the 2001 World Values Survey, this study analyzes the attitudes of the general public of South Africa towards environmental matters. These attitudes are contrasted with those of the elites, who have a disproportionate influence over policy-making, by looking at the 2000 South African National Leadership Opinion Survey. This study finds that, as hypothesized, the general population of the country is quite unwilling (or unable) to contribute materially or financially to environmental improvements, especially in relation to the elites.

In the final part of the study, these findings are employed in the development of a set of guidelines that policy-makers can use to increase the probability of developing successful and effective environmental policies. These guidelines take into account the nature and dimensions of popular attitudes, and consider ways in which environmental policies can foster the support of a public that is confronted with so many other serious issues.

Abstrak

Suid-Afrika, soos soveel ander ontwikkelende lande, is gekonfronteer met 'n baie komplekse situasie: alhoewel grootskaalse degradasie van die omgewing die toekoms van die land bedreig, sien die algemene publiek nie omgewingskwessies as belangrik genoeg om 'n bydrae te lewer nie. Die argument is dat te veel van die land se bevolking net te arm of te gefokus is op die bevrediging van kort-termyn oorlewingsbehoefte om prioriteit te gee aan omgewingskwessies.

Deur gebruik te maak van die 2001 Wêreld Waardestudie, analiseer hierdie studie die houdings van die Suid-Afrikaanse publiek teenoor omgewingskwessies. Hierdie houdings word gekontrasteer met die van die elites, wat 'n disproporsionele invloed het oor die beleidsmakingsproses, deur gebruik te maak van die 2000 Suid-Afrikaanse Nasionale Leierskap Opinie Studie. Die studie vind dat, soos gehipotiseer, die publiek onwillig (of net nie in staat) is om bydrae te lewer tot die oplossing van omgewingskwessies, veral in vergelyking met die elites.

In die finale afdeling van hierdie studie word die bevindinge gebruik om 'n stel riglyne te ontwikkel wat deur beleidmakers gebruik kan word om die waarskynlikheid van suksesvolle en effektiewe omgewingsbeleid te verbeter. Hierdie riglyne neem in ag die natuur en dimensies van publieke houdings, en bring na vore maniere waardeur omgewingsbeleide die ondersteuning van 'n publiek, wat gekonfronteer word met soveel ander ernstige kwessies, kan opbou.

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Chapter 1: Environmental Attitudes and Public Policy: Background, Problem Statement and Concepts

1. 1 Introduction

In the past few decades the issue of environmentalism has penetrated the socio-political consciousness of virtually all developed and developing nations. The interpolation of environmental matters and concerns into the political process of these countries have attracted considerable attention from the academic community, attested to by the already highly developed body of literature on political ecology (Mansilla and Collo, 1997: 133).

However, the fact that the field of political ecology is expanding rapidly has not lead to consensus amongst social scientists on its various aspects. The way in which the term 'environmental concern' has been conceptualized and operationalized, as well as its determinants, is still subject to vigorous debate (Goken *et al.*, 2001: 1). The theory central to this debate is that of Inglehart, whose postmaterialist thesis posits that the way individuals give priority to different sets of values reflects their socio-economic conditions, and that improvements in their socio-economic environment results in individuals shifting their attention from issues of physical security to concerns related to quality of life (Inglehart, 1977). Loosely based on Maslow's Hierarchy of Needs, the postmaterialist thesis explains the growth of environmental concerns in developed nations by stating that, due to the level of economic security that individuals in these countries experience, nonmaterial needs, such as happiness, peace and environmental quality, have replaced material needs as the prime motivator of individual behaviour (Adeola, 1998: 4).

The assertion that pro-environmental behaviour and positive attitudes towards the environment are phenomena unique to wealthy postmaterialist cultures was also enforced by a knowledge gap in environmental literature (Adeola, 1998: 2; see also Dunlap *et al.*, 1993; Friend, 1992; Inglehart, 1977, 1990). Only recently have cross-national data on public attitudes concerning the environment become available for analysis (Adeola, 1998: 2). With studies on environmental concerns in developing countries increasing, Inglehart's main theory has been subjected to increasing scrutiny. Recent studies have shown that, contrary to the postmaterialist thesis, the citizens of a number of developing countries, who have not acquired stable economic security, do indeed show a degree of environmental concern on a par with their counterparts in developed nations (see Diekmann and Franzen, 2000; Dunlap *et al.*, 1993, 1999; Adeola, 1998; Gorken *et al.*, 2001).

Instead of some global shift in values, this research has also attributed environmental concerns to the specific socio-economic conditions within these countries. Studies have linked high environmental concerns in developing nations to the fact that environmental degradation in these countries is much more severe and much more conspicuous, with many of the citizens of these countries coming into contact with environmental degradation on a daily basis (Diekmann and Franzen, 2000: 10). Also, the citizens of developing countries are more dependent on natural resources for their existence, which means that environmental degradation and pollution threatens their actual short-term

sustenance needs and thus raises the level of their concern (Kaiser and Roumasset, 2000: 1; Kemmelmeier *et al.*, 2001: 18).

The main difference that has emerged between the environmental concerns in developed and developing nations lies in the disjunction between attitude and behaviour. Although the citizens in developing countries have a recognisable level of environmental concern, studies have expressed doubt that these types of environmental concern actually lead to changes in behaviour (Diekmann and Franzen, 2000: 10; Adeola, 1998; Gorken *et al.*, 2001). Research has produced a great deal of evidence supporting the 'low cost' hypothesis¹, which posits that environmental concerns and the cost intensity of behaviour together affect the extent of environmental behaviour in such a way that the influence of environmental concerns diminishes with increasing costs (Diekmann and Franzen, 2000: 11). The research suggests that the problem in developing countries is that, although there is this level of environmental concern, poverty and economic insecurity inhibits this concern from actually influencing behaviour. Accordingly, moral appeals to reduce environmentally-damaging behaviour have very little effect (Diekmann and Franzen, 2000: 11). Although citizens in developing countries are concerned, they are powerless, for

Poverty itself pollutes the environment, creating environmental stress in a different way. Those who are poor and hungry will often destroy their immediate environment in order to survive: They will cut down forests, their livestock will overgraze

¹ See Diekmann and Preisdorfer (1999) for a detailed discussion and an empirical test of the hypothesis.

grasslands; they will overuse marginal land; and in growing numbers they will crowd into congested cities (Report of the World Commission on Environment and Development, 1987: 8).

These issues have a wide range of implications for public policy. If policy-makers aim to develop environmental policy that corresponds with public attitudes, they should take into consideration behaviour-orientated attitudes (in contrast to general attitudes) when developing policy. The aim of this study is to look at behaviour-orientated environmental attitudes, most specifically the willingness of the general public in South Africa to contribute financially and materially to environmental protection and improvement, and the policy implications of these societal attitudes. The attitudes of the general public on related environmental matters will be contrasted with those of the elite of the country – the drivers of the public policy process.

Previous research leads us to hypothesise that the elites in a developing country like South Africa will have a higher level of environmental awareness than the general population, as those with a higher socio-economic status in South Africa are more likely to be active members of an environmental organization and more environmentally concerned in general (see Vollgraaff, 2001: 39). Baumol and Oates (1988: 241), as well as Diekmann and Franzen (200: 1), also propose that there is ample reason to believe that the demand for environmental quality will rise with income. This reason for this is that, for the typical individual, environmental quality is a *normal* good, and therefore demand rises with income. The income levels of elites, their level of education, as well as their

quality of life, all point to the assumption that the elites will be characterized by higher levels of environmental concerns.

Public policy is not simply the aggregating of the preferences of the general public, but rather it is the elites that are the primary creators of public policy, arguing what preferences the public *ought* to have (O'Neill, 1993: 71). If elite and general population attitudes are incongruent, if the elite have a higher level of willingness to make sacrifices for the sake of the environment, then it is of the utmost importance that public policy makers do not act solely in accordance with their own values, but also within criteria determined by public attitudes. In order for elites to implement their policies, they are required to be aware of and address the *actual* attitudes of the general public. The reason for this is that, if the attitudes of the elite are in contrast with those of the public, there is a greater likelihood that the policy programme will fail or be ineffective in attaining its goals. Thus, if the general population has little support for environmental endeavours that will cost them money, then the elite must devise policies to change or act upon these attitudes in such a manner so not as to delegitimise their policy initiatives².

Before undertaking an analysis of the data, however, it is important to place the attitudes of the general public within the historical and socio-economic context of the country in order to develop a greater understanding of the nature of these attitudes.

² Adeola (1998: 5) notes that in developing countries, the general public usually yields the responsibility of environmental protection to the government, due to their traditional collectivist orientation and poverty.

1. 2 A historical and socio-economic contextualization

Before the study of the incongruence between elite and popular attitudes can be analyzed, it is imperative to elucidate on the history of environmentalism in South Africa, as well as the current socio-economic context of South Africa, within which these attitudes exist. As Buttel (in Adeola, 1998: 3) posits, environmentalism must be explained in the context of social structures and the culture of the society within which it is embedded. Attitudes and values are in the majority of cases context specific, and are almost always a consequence of the circumstances of the person in question, as well as the historical constellation of events that lead to these circumstances and societal trends. Also, a society's level of economic development always imposes limits on what a government can do in providing public goods or services to the community (Anderson, 1979: 31). The rest of this section will be divided into four parts. Firstly, a history of environmentalism in South Africa will be outlined, followed by an analysis of the current social and economic conditions in South Africa and a brief overview of the current state of the environment in the country. In conclusion, the research methodology of this study will be elucidated.

1.2.1 A history of environmentalism in South Africa

In most developing countries, including South Africa, environmentalism as a social movement and political consideration started to gain momentum only very recently. Histories of political instability and economic turbulence have kept environmental issues off the government agendas of such countries - a trend still pervasive in many poor and war-torn regions. For South Africa, no factor has had a more fundamental influence on the environmental movement than apartheid had.

Before apartheid the developments within the environmental movements in South Africa reflected those that occurred on a national level elsewhere in the developed world. The first environmental non-governmental organization (ENGO), the Natal Game Protection Association, was founded as early as 1884. The first official game reserve, the Pongola Game Reserve, was proclaimed in the Zuid-Afrikaansche Republiek in 1894, only 22 years after the establishment of the first ever reserve, Yellowstone National Park in the United States (Steyn and Wessels, 2000: 210). However, with the apartheid regime reaching its apex in the 1960s, South African environmentalism gradually started to fall behind its international counterparts as it failed to address the emergence and establishment of environmentalism as a political issue on both national and international levels (Steyn and Wessels, 2000: 210). While environmentalism was politicized throughout the developed world, forcing governments and parties to place it on their agenda, it remained an apolitical phenomenon in South Africa, mainly due to the absence of television to bring the crisis into people's homes and the isolation of South Africa from the international political arena³ (Steyn, 2000: 1).

The development of environmentalism in industrialized countries could for the most part be attributed to the advancement of global communication networks, which made possible an accelerated diffusion of information and knowledge on salient environmental issues⁴ (Adeola, 1998: 6). In the case of South Africa isolation from the international

³ Television, for instance, was introduced into South Africa only in 1975.

⁴ A large number of international environmental problems have served as a catalyst for civil action and government policy in developed countries, most notably acid rain, oil slicks, ozone depletion, the trade in

community, coupled with internal strife, lead to the 'environmental revolution' progressing largely unnoticed by the general public of South Africa (Steyn, 2000: 1). What is more, this isolation also shielded South African industry from some of the international pressure for environmental improvement (Bethlehem and Goldblatt, 1997: 6).

The apartheid government also ensured that environmentalism never became a political issue. The National Party government was more interested in pursuing policies of unrestrained economic growth than policies that would in some way limit development in order to incorporate environmental considerations (Steyn and Wessels, 2000: 211). The government was also obsessed with imposing a political ideology on society and thus wanted to preserve the *status quo* of environmentalism as an apolitical phenomenon (Steyn, 2002: 127).

Although there were about 50 ENGOs operating in the country during the late 1960s (26 of which were founded between 1965 and 1974), they failed to rally any real support from the population (Steyn, 2002: 126) or effectively identify and oppose the fundamentally detrimental policies of the apartheid government⁵. The problem was not the number of ENGOs in operation, but rather the type of environmental issues addressed by the ENGOs. Although there were a few that addressed non-conservation issues, the environmental sector was dominated by a conservationist and preservationist agenda,

endangered species, global warming and deforestation (International Encyclopaedia of Public Policy and Administration, 1998: 779).

⁵ According to many environmentalists, the apartheid government's homelands policy, for example, resulted in the overpopulation of the homeland regions, accompanied by degradation of resources due to overgrazing and overuse of agricultural land (Kotzé and Vollgraaff, 2003: 5).

with no emphasis placed on the human environment with its social and political dimensions⁶ (Steyn, 2002: 127). This preservationist and conservationist agenda - a perspective termed by Cock as the 'authoritarian conservation perspective' (1991: 1) - focussed solely on particular fauna and flora species (Kahn, 2002: 1; Steyn, 2002: 127).

The proponents of this approach were exclusively the affluent, educated, mainly white minority (Kahn, 2002: 1), primarily because apartheid effectively excluded black people from civil society. The membership of the environmental non-governmental organizations reflected the racial policies of the day and in most cases it was actually restricted to whites only (Steyn, 2002: 128). In the midst of black poverty, single-species campaigns such as 'Save the Rhino' were the focus of the mainstream environmentalist movement, while in black communities concern for the natural environment was a luxury few could afford in their daily struggle to meet their basic needs (Steyn, 2002: 128). While white ENGOs and the government spent millions of rands to prevent the extinction of fauna and flora, millions of black people had no access to safe water, adequate land, electricity and primary health care (Steyn, 2002: 140). The effect of this was that the black population of the time felt both excluded and ignored, and started to consider environmentalism as an irrelevant, elitist trend (Kahn, 2002: 1).

⁶ Although similar, conservationism and preservationism are distinct approaches. Conservationism is based on the controlled use of resources or multiple-use resource management. The underlying assumption of conservationism is that resources exist for the benefit of society, but that these resources should be recognized as limited, and should therefore be used wisely (i.e. efficiently). The preservationist approach is concerned mainly with the preservation of the natural environment. This approach adheres to a biocentric perspective, believing that the human species is one among equals in nature, and that nature should be valued for its intrinsic worth (International Encyclopedia of Public Policy and Administration, 1998: 778).

The black majority of the country also connected the environmental movement with their oppression under the apartheid government. The apartheid government co-opted the large ENGOs and effectively neutralized their advocating power, making them part of the racist government (Steyn and Wessels, 2000:217). Also, government policies like the relocation of the Makulele community in order to unify the Kruger National Park in 1969, the persecution of black poachers in national parks and game reserves, and the involvement of the Department of Planning and the Environment in industrial decentralization, to name but three examples, created the perception that environmentalism was a threat to black livelihoods; it showed black communities that white people considered 'nature' more important than the lives of black people (Steyn, 2002: 129).

From the late 1980s onwards, however, a shift started to occur within the environmental movement in South Africa, as the 'authoritarian' conservationist view was gradually replaced with a more politically-minded perspective (Kotzé and Vollgraaff, 2003: 6). The establishment of Earth Life Africa (ELA) marked a new beginning of radical change in the non-governmental sector of the South African environmental movement (Steyn, 2002: 147; Steyn and Wessels, 2000: 215). ELA was the first environmental organization to effectively politicize the environmental movement in South Africa. Also, ELA directly opposed government policies and highlighted the detrimental effects that apartheid was having on both humans and nature, and in so doing showed that co-operation with the government (the preferred method up to 1988) was not necessarily the only path to follow

to bring about change in the management of the South African environment (Steyn and Wessels, 2000: 217)

At this stage it was still clear that the apartheid government was not interested in the politicizing of environmentalism. This indifference of government and many right-wing political parties in general was clearly exhibited when the Wildlife Society conducted a survey measure the environmental attitudes of candidates in the 1989 elections. Of the 752 candidates who stood in the election, only 55 took the trouble to fill in the questionnaire. Noteworthy absentees were the State President, F.W. de Klerk, and the Minister of Environmental Affairs, Gert Kotzé (Steyn and Wessels: 2000, 221). The results showed that 31 per cent of those who responded were in favour of maintaining the *status quo* in environmental administration, and more than a quarter rated visiting the Kruger National Park as being more important than improving quality of life in general⁷.

Major change in government attitudes and policies towards environmental issues occurred on a grand scale with the end of apartheid (Muller, 1996: 142). With the unbanning of anti-government political organizations and the subsequent demise of the apartheid regime between 1990 and 1994, political space was created for organizations to broaden their horizons beyond apartheid-related politics and added impetus to the dissolution of the formerly strict boundaries between environmentalism and politics in South Africa (Kahn, 2002: 2). Political organizations gradually began to accept that environmental issues should form a legitimate part of their political agenda, and the

⁷ This may not be a very scientific poll, but it nevertheless gives an indication of the low regard in which the opinion-leaders of the time held environmental issues.

narrow considerations previously given to environmentalism gave way to a more holistic approach, within which socio-economic and political spheres were included in addressing environmental concerns (Khan, 2002: 2). At the turn of the century South Africa was party to over 43 multilateral agreements relating to environmental issues (Environment-South Africa-Profile, 2001: 2), and even South Africa's new Constitution (Act 108 of 1996) identifies the importance of the environment. Section 24 stipulates that "Everyone has the right:

- (a) to an environment that is not harmful to their health or well-being; and
- (b) to have the environment protected, for the benefit of present and future generations,
 - i. through reasonable legislative and other measures that prevent pollution and ecological degradation;
 - ii. promote conservation; and
 - iii. secure ecologically sustainable development and use of natural resources while promoting justifiable economic and social development..."

The most comprehensive environmental policy document - the National Management Act (No. 107 of 1998) also states in its preamble that poverty and inequality are the main causes of environmental degradation and that sustainable development requires the integration of social, economic and environmental factors⁸.

⁸ Other examples of government initiatives dealing environmental matters is the creation of the Environmental Justice Networking Forum in 1994 and the first Environmental Court in 2003. For a complete list of all international environmental agreements signed by South Africa, see the CIA-World Fact Book – South Africa: www.cia.gov/cia/publications/factbook/prints/sf.html. (Accessed 19/08/03).

Yet, although much has changed and the government is environmentally-minded, there are many doubts about whether South Africans in general place any true importance on environmental matters. The politics (and economics) of the day still seem dominated by more pressing issues, such as inequality, unemployment, crime and HIV/AIDS, all leading to unsustainable development. The gap between government ideals and issue advocating, and the actual development and implementation of effective public policy to deal with serious issues, has always been considerable (see Centre for Development and Enterprise, 1999: 22/3). This is a situation characteristic of most developing countries, where lack of resources, weak government and an economically impoverished electorate severely incapacitate the ability of government to develop and deliver effective policy. These are societies that are plagued with a myriad of serious issues: unemployment, civil strife, HIV/AIDS, social equity and crime are the primary concerns of both citizens and government.

The fact of the matter is that the main agendas of political parties are not in any sense based on environmental matters and policies. Also, the fact that the three green parties to have existed in South Africa (the Ecology Party, the Green Party of South Africa, and the Government by the People Green Party) have received an extremely limited level of support in South African politics and from the South African electorate (Steyn and Wessels, 2000: 223; Kotzé and Vollgraaff, 2003: 7).

1.2.2 Socio-Economic Context

South Africa is a middle-income, developing country with an abundant supply of resources, well-developed financial, legal, communications, energy, and transport sectors, a stock exchange that ranks among the 10 largest in the world, and a modern infrastructure supporting an efficient distribution of goods to major urban centres throughout the region (CIA World Fact Book – South Africa, 2003: 6). Yet South Africa faces a plethora of very severe socio-economic issues that are characteristic of developing nations: high unemployment, poverty, extreme inequality and a pervasive HIV/AIDS pandemic. After a decade of democracy, poverty remains widespread and income disparities remain enormous, as economic liberalization and tight budgetary policies complicate efforts to improve living conditions and expand opportunities for the poor (Harsch, 2001: 1).

The country's Human Development Index⁹ value is estimated at 0.688, placing it within the Medium Human Development range, below countries like China, Russia and Peru, and above countries like Egypt, India and Zimbabwe (South Africa Survey, 2001/2: 136). Out of the 173 countries within which this survey is conducted, South Africa is ranked 107th (Annual Profile: South Africa, 2003: 2). Although many may consider the country's Human Development Index to be reasonably high, it must be remembered that there is a considerable divergence between the races and regions of South Africa (May, 1998: 1).

⁹ The Human Development Index measures socio-economic development according to life expectancy, per capita income and level of education.

Although South Africa's per capita income is about \$3, 020 (calculated by the Atlas Method¹⁰), its level of income disparity is among the most extreme in the world (The World Bank Group, 2002: 1). Of the total population, 13% (about 5.4 million) of people live in 'First World' conditions, while 53% (about 22 million) live in 'Third World' conditions (The World Bank Group, 2002: 1). The GINI coefficient¹¹ of South Africa is estimated at 0.69¹², making it the third most unequal society in the world, surpassed only by Guatemala and Brazil (NALEDI, 2000: 7). Although poverty is not confined to one racial group, it is concentrated among the blacks population, particularly Africans¹³, and within this group, particularly women (May, 1998: 3). One example of the inequality in South Africa is the so-called 'digital divide' within South Africa: 8.6% of the population own a computer, yet within ethnic groups 46% of whites households own one compared to less than 2% of African households (Census 2001).

South Africa has experienced slight economic growth, but has fallen short of the levels required to address the socio-economic imbalances and alleviate poverty and unemployment (Annual Profile – South Africa: 2003: 3). The GDP growth rate averaged 2.2% between 1997 and 2001, and was calculated at 3% for 2002 (Country Briefings: South Africa, 2002: 1), which compares favourably with rates in countries with similar economic fundamentals (Annual Report – South Africa, 2003: 3) (See Table 1). Yet it is

¹⁰ The Atlas Method is the method employed by the World Bank to calculate a country's GDP per capita. For more information on the Atlas Method, go to www.rrojasdatabank.org/keyref.htm. Accessed 10/10/03.

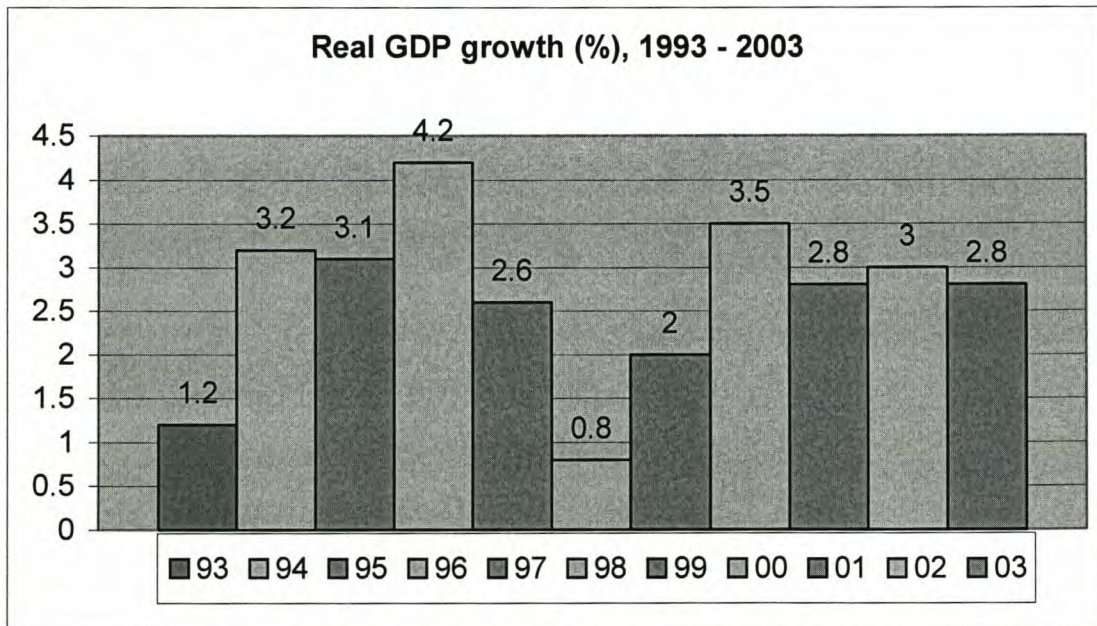
¹¹ The GINI coefficient is an indicator measuring the income inequality in a country. A numerical value between one and zero is assigned to the level of income inequality in a country, with one being totally unequal and zero being totally equal.

¹² 1995 IES data places the GINI coefficient of South Africa at 0.60, therefore an estimate could be somewhere between these two numbers.

¹³ 79% of the 44.8 million people living in South Africa are Black Africans (Census 2001). Thus, stating that poverty is concentrated within this ethnic group implies that poverty particularly affects the great majority of South Africans.

estimated that, while 400 000 new job seekers enter the labour market each year, only between 100 000 and 150 000 new jobs are being created (South Africa: Economic and Socio-Political Environment: 2002: 1) – a trend many have referred to as ‘jobless growth’ (Stoddard, 2003: 2). This trend will just exacerbate the already exceedingly high unemployment rate faced by the country: 26.4% under the strict definition, and 42.1% under the expanded definition¹⁴ (South Africa Survey, 2001/2: 212; Seria, 2003: 1).

Chart 1: Real GDP growth in South Africa (%), 1993 – 2003.



Source: Annual Report – South Africa, 2003: 3

The extremely high unemployment rate has directly affected the country’s growing poverty issue crisis. It is estimated that 45% of the country’s population lives in

¹⁴ The strict definition refers to the proportion of the active population who have not worked in the last seven days prior to being interviewed; want to work, and are available to start work within a week of being interviewed; and have taken active steps to look for work or to provide themselves with self-employment in the four weeks preceding the interview. The expanded criterion excludes the third of these criteria.

poverty¹⁵, with a yearly increase of between 1% and 2% (South Africa Survey 2001/2: 36). According to one report by the United Nations (Harsch, 2001: 3), the percentage of those living in poverty in South Africa is actually as high as 65%, with 19 million (45% of the entire population being “trapped in poverty”, living below R353 per month. The report also states that the poor are concentrated in specifically rural areas, where the poverty rates reach 71%. Poverty, as can be imagined, has led to a great deal of social strife and the breakdown of social structures (South Africa Survey, 2001/2: 38).

Malnutrition, for example, has been a consequence of the widespread poverty. A report conducted by the Department of Health found that two-thirds of households in South Africa experience food shortages, half the country’s children were eating less than the recommended daily amounts of basic nutrients, and one in five children were stunted due to malnutrition (South Africa Survey, 2001/2: 40). Also, according to the Department of Education’s 2001 White Paper on Early Childhood Development, approximately 40% of young children in South Africa grow up in conditions of poverty and neglect (Macfarlane, 2003: 7).

All the socio-economic issues facing South Africa have been magnified by the HIV/Aids pandemic, which is without doubt the country’s most devastating problem (South Africa Survey, 2001/2: 40). It is estimated that 13% of the country’s total population, and 25% of the country’s economically active population, are infected with HIV (Woolard, 2002: 1). Furthermore, it is estimated that an additional 1,700 people are infected with

¹⁵ Poverty income levels range from R551 for one individual to R2349 for a household of eight or more members.

HIV/AIDS every day in South Africa (South Africa: Economic and Socio-political environment, 2002: 2). Life expectancy has already dropped from 62 years in 1990 to 48 in 1999 due to HIV/AIDS (The World Bank Group, 2002: 7). The percentages of adult deaths that can be attributed to AIDS-related diseases have increased from 9% in 1995/6 to about 40% in 2001/2 (Woolard, 2002: 4). What is more, the number of children orphaned by AIDS may reach 1 million by 2004 (Woolard, 2002: 1). By 2010, UNAIDS predicts that this number will have increased to between 3.5 million and 4 million (South Africa Survey, 2001/2: 34).

Most of the country's social ills, specifically poverty and inequality, can be attributed to the enduring legacy of apartheid (Kane-Berman, 2001: 1), which still continues to undermine development (May, 1998: 1). The impact of apartheid, which stripped people of their assets, especially land, distorted economic markets and social institutions through race discrimination, and resulted in widespread violence and destabilization, can still be seen throughout all spheres of South African society (May, 1998: 5). The racist policies of the apartheid government accrued wealth for the minority whites against the interests of the black majority. The unequal distribution of resources (including land, mining rights and access to capital) marginalized a large sector of the population to the menial and poorly paid sector of the labour market, if they gained access at all (Woolard, 2002: 7). Economic growth, for example, is being severely hampered due to a lack of skilled labour that stems from the extremely skewed education policies of the apartheid government (Pillay, 2001: 12).

The current ANC government, as the first democratically elected government to rule in the country, has inherited the twofold task of establishing and consolidating the democratic processes in South Africa and addressing the socio-economic issues created by apartheid (Country Briefings: South Africa: 2003: 2) – the twin mandates of the ANC government. Reducing inequality and poverty, and tackling unemployment, continue to be the key points of focus of the government.

Yet while the government does try to deal with the social issues facing the country, it is limited by the demands of maintaining macro-economic balance and by the limits on state capacity (Simkins, 2000: 1). This is a global trend, with governments over the past decade becoming increasingly constrained in the actions they are able to take to promote growth or regulate the ways in which benefits are distributed (May, 1998: 1).

Due to these constraints, as well as ineffective and weak policy implementation, the past decade of ANC rule has seen inequality as well as poverty and unemployment steadily worsening (South Africa: Economic and Socio-Political Environment: 2002: 1; May, 1998: 1). Statistics South Africa recently released a report showing that, between 1995 and 2000, the average household income decreased significantly. In October 1995 the average household annual income was R37, 000. When inflation is taken into account, the value for 2000 was projected at R51 000 if the average income was to remain constant. The average household income for 2000 was R45, 000, way below the 1995 levels (Mzimande, 2002: 1). The report also showed how inequality had worsened: In 1995 the poorest 20% of households received a mere 1.9% of the total income in our

country. In 2000 this paltry share had dropped still further to 1.6% of total income (Mzimande, 2002: 1). Shockingly, even inequality between white and black South Africans has increased. In mid-November 2002 Statistics South Africa reported that the average African household experienced a 19% fall in income, while the average white household experienced a 15% increase (Mzimande, 2002: 1)

These issues are still the most pressing priorities not just for the government, but also for the majority of the population as well (Kane-Berman, 2001: 1), both seeing them as the legacy of apartheid, which is the mandate of the government to remedy. As in the case of so many developing nations, pressing economic issues are primary, which leaves little room for dealing with problems such as environmental degradation.

Yet environmental degradation in South Africa is a serious issue, one that needs comprehensive policies and adequate resources. The following section of this study will give a brief overview of South Africa's environmental situation, highlighting the severity of some of these environmental problems.

1.3 The Current State of Environmentalism in South Africa

The economy of South Africa is highly dependent on natural resources for food and energy production, inputs to manufacturing, and the absorption of wastes and pollutants (Blignaut, 2002: 1). To achieve sustainable development, it must be recognized that the economy and the environment are co-dependent, i.e. that economic instability leads to

environmental degradation, and responsible environmental management makes economic sense (Blignaut, 2002: 1)

South Africa has one of the world's highest levels of diversity of plant and animal species within one country and is home to many species not found anywhere else in the world. This high level of diversity is due to the broad range of climatic, geological, soil and landscape forms found in South Africa (Barnard and Newby, 2002: 3). Terrestrial resources are rapidly diminishing, however, due to the conversion of natural habitat into farmland, forestry, human settlement and industrial development (Barnard and Newby, 2002: 1). Only 86% of the land area of South Africa is used for cultivation, while only 6% is conserved (Barnard and Newby, 2002: 3). Also, over 8% of the country has been invaded by alien vegetation and millions of hectares are affected by bush encroachment.

Soil erosion is another major environmental concern. 5% of soils are affected by water erosion and the average soil loss is a staggering 2.5 tons (with a maximum of 60 tons) per annum (Barnard and Newby, 2002: 1). This is more than eight times the rate of soil formation and clearly unsustainable.

Production pressures on terrestrial ecosystems result in degradation of the vegetation and soil, leading to less land capable of being productive in the future. In 1970 there were 0.86 hectares of agricultural land available per person. This decreased to 0.5 in 1980 and is estimated to fall to 0.2 hectares by the year 2020 (Barnard and Newby, 2002: 4).

Human population growth and pollution have caused extensive disruption of ecosystem

processes, loss of biodiversity and the depletion of coastal and marine life (Burns *et al.*, 2002: 5). This has serious implications for income-generating exports and domestic food security (Burns, 2002: 5).

South Africa also has more than its share of endangered species: 10% of the country's mammals are threatened, 2% of its bird species, 12% of its reptile species, 16% of its amphibian species, and 36% of its freshwater fish (Burns *et al.*, 2002: 3). It is also estimated that the total number of threatened plant taxa¹⁶ doubled between 1980 and 1995 (Burns *et al.*, 2002: 3).

Environmental degradation is aggravated by three characteristics of the national economy (Bethlehem and Goldblatt, 1997: 3). Firstly, the South African economy is highly reliant on energy-intensive sectors dependent on low electricity prices. 'Cheap' electricity, however, negates the environmental costs incurred by the generation processes. Secondly, South African industry has in general a set of outdated stock and low levels of foreign investment, which impedes the capacity of industries to upgrade to more environmentally friendly production technology. Thirdly, a major part of the country's gross domestic product, exports, exports and employment is provided by primary, non-renewable resource extraction. These are all barriers to a model of sustainable development and effective environmental programmes for the country's economy.

¹⁶ Taxa: category of organisms: any of the groups to which organisms are assigned according to the principles of taxonomy, including species, genus, family, order, class, and phylum. *Microsoft Encarta 2002*.

1.4 Problem Statement

From the above discussion it is clear that it is important to know what the difference between elites and the masses is with regards to environment issues. Therefore the main aim of the study is to determine the nature of elite and mass orientations towards environmental issues and the extent to which these orientations differ. The central focus of this research essay will lie in a descriptive-analytical discussion of the congruence between elite and popular attitudes towards environmentalism in South Africa. It is a cross-sectional observation of the nature of environmental attitudes within these two groups.

A secondary focus of this research essay will be the policy implications of elite and popular attitudinal congruence towards environmental issues. Following the case made in the background section of this study (pp. 1-4), it is clear that policy makers will have to take into account the attitudes towards social issues before policy can be developed and implemented effectively. This section hopes to engender broad guidelines that policy-makers should take into consideration when deciding upon the scope, direction and nature of environmental policies and programmes. These guidelines will help the development of environmental policies that will both be accepted by the general public and be successful in their general aims.

1.4.1. Central Questions

The first part of this study will entail the construction of an index which will be employed to measure the willingness and/or ability of the elites and the general public of South

Africa to contribute financially and materially to environmental matters. This index will place respondents in one of two categories: 'active concern', conceptualized as a willingness and/or ability to contribute financially and materially to environmental matters; and 'inactive concern', conceptualized as an unwillingness or inability to contribute financially to environmental matters. The central question of this study revolves around the congruence between elite and popular attitudes towards environmental issues, stated in following hypothesis:

- **Hypothesis:** The elite of South Africa will have a significantly higher level of active environmental concern than the rest of the general public.

Other survey questions will also be employed in this analysis, leading to a comprehensive description of the nature of environmental attitudes among the elite and the wider social groups in South Africa.

1.5 The Concepts

In the previous section of this study it was stated that there is a link between attitudes on the environment and public policy. The following section will elucidate upon this linkage, showing the importance of popular attitudes in forming and effectively implementing public policy.

1.5.1 Public Policy

The concept of public policy has already generated a great many definitions of varied complexity and influence (Howlett and Ramesh, 1995: 4). One of the most basic definitions asserts that public policy is 'the relationship between a government unit and its environment' (Eyestone, quoted in Anderson, 1979: 2). Others have broadly defined public policy as 'anything a government chooses to do or not to do' (Dye, quoted in Howlett and Ramesh, 1995: 4).

Yet in spite of the myriad of definitions, there is a general understanding of the key aspects of public policy. Firstly, as stated in the latter definition, public policy is that which results from decisions made by government and a decision made by government to do nothing is just as much policy as a decision to do something (Howlett and Ramesh, 1995: 4). Secondly, public policy is considered to be a result of purposeful and goal-orientated behaviour, rather than random or chance behaviour. In modern political systems public policies are by and large 'not things that just happen' (Anderson, 1979: 3). Yet, as Parsons (1995: 13) points out, public policy may (and very often does) have unintended consequences. A policy may also be something which is not intended, but is none the less carried out in the practice of implementation and administration.

Thirdly, public policy consists of courses or patterns of action by government officials (and often many other actors) rather than the separate, discontinuous decisions of each actor (Anderson, 1979: 3). The assumption is that each specific decision regarding a policy is part of a larger coherent policy direction, like a plan is a part of a strategy. Also,

public policy is a process, which does not end with the development of legislation, but also includes all the decisions surrounding implementation and policy evaluation (Anderson, 1979: 24).

Within the context of this study, it also needs to be stated that in all countries a government's capacity to implement its policy decisions is a significant consideration in the type of decisions it takes: there are a number of environmental constraints, both internal and external, that limit the range of options they can choose from a policy arena (Howlett and Ramesh, 1995: 6). Government cannot address all issues to the utmost and issues must therefore be placed on a priority list and dealt with accordingly.

1.5.2 Public policy and the elites

The process of public policy-making also includes those people with a disproportionate amount of influence over decisions-making, called elites. According to elite theory, within every society power is concentrated in the hands of a few groups and individuals, who manipulate the decision-making and policy process to their own advantage (Parsons, 1995: 248). These elites can be defined as those persons who, individually, regularly and seriously have the power to affect organizational outcomes¹⁷ (Higley, quoted in Kotzé, 1991: 3). Consistent with this line of reasoning, the model states that it is not the general public who determine public policy through their demands and actions, but rather the elites who makes the decisions of public policy (Anderson, 1994: 19). O'Neill (1993: 71)

¹⁷ Power can be defined as the ability to make offers and threats that are likely to alter the motivations of persons other than the power wielder (Higley, quoted in Kotzé, 1991: 3). Influence, on the other hand, can be seen as the ability of an individual or group to initiate voluntary adjustments and change in attitudes, opinions or behaviour of another individual or group by means of persuasive reasoning or conduct (see Bell, 1974).

phrases the basic tenet of the elite approach by stating that public policy is not simply aggregating the preferences of the general public towards a specific issue; rather, it is the elite who are the primary creators of public policy, arguing what preferences the general public *ought* to have.

Policy thus reflects the values of the elite and serves their interests, which may or may not be the welfare of the general population¹⁸ (Theodoulou, 1995: 6). The idea of elite domination within society clearly has far-reaching consequences for the notion of democracy, which is conceptualized within elite theory as a system which allows for the selection and renewal of the political elite through electoral competition and for the relative autonomy of other functional elites¹⁹ (Lafferty and Meadowcroft, 1998: 10). Through elections a mechanism is provided for replacing a government team at regular intervals if they prove to be incompetent, excessively corrupt, or become divorced from the concerns of the public²⁰ (Lafferty and Meadowcroft, 1998: 10). Thus, although elites

¹⁸ The actual policy-formulation process is a complex and highly diffuse set of procedures with different issue networks and policy communities at work, something which is covered in detail elsewhere. We will not discuss in detail the different models that help explain the policy process. For a discussion on the policy-formulation process see, amongst others, Howlet and Ramesh (1995). Two of the best recent descriptions of the policy-making process in South Africa are those of Booysen and Erasmus (1998) and the Centre for Development and Enterprise (1999). For a discussion of the different models of policy making see Anderson (1994), Ham, and Hill (1993), and Booysen and Erasmus (1998).

¹⁹ According to elite theory, it is not simply the political elite who have a disproportionate influence over the policy-making process. Elites from other sectors, for example, business and trade unions, also play a major role, because the political elite have a natural tendency to rely on the inputs of other elites (Lafferty and Meadowcroft, 1998: 10). Also, the elite of a society should not be seen as homogenous. In fact, Higley and Burton (1989: 20) consider a disunited national elite to be the most common type. Democracy is seriously threatened if the various elite sectors are not autonomous, something which tends towards a state of oligarchy.

²⁰ According to Max Weber (1968: 948-52. 956-58), an elite-driven political system does not bring into question the principles of democracy. Rather, it is a basic requirement for an effective democracy. Weber considered modern societies far too large and complex to be governed effectively by direct democracy, which would only lead to inefficiency, instability and an inability to resolve (or at least mediate) factional disputes. Also, the fact that leaders *can* be replaced at fixed intervals does differentiate democracy from all other forms of government, specifically oligarchy. On the other hand, Michels (1962) considers an elite-driven democracy as a simple artifice veiling actual oligarchy.

have a disproportionate influence over public-policy, government is still subservient to the general population, and is thus forced to govern in the interests of the people, or else they will be replaced by the people

1.5.3 Public opinion: the relationship between the elite and the public

A number of studies suggest that the elite define the different dimensions of public issues and that they can enhance the salience of some issues as opposed to others²¹. Yet, while the elite of a society may have this disproportionate influence over societal decision-making, it needs to be noted that elite decisions are circumscribed by public attitudes and demands. Without public consent, no policy can be successfully implemented. To quote Knight (in Peeler, 2001: 238):

Even if we concede (probably wrongly) that mass publics without elite leadership are invariable ineffectual, we must also recognize that elites need mass publics and are, to varying degrees, constrained by their demands.

Even if the elite greatly influence the policy-making process to reflect their own interests, they have to act in line with their mass bases, without whose support they would not be elites (Peeler, 2001: 240). If they make decisions that are in conflict with the attitudes of the mass public, and they cannot induce public acceptance of policy, then there is very little chance that the policy could be successfully implemented. Thus elites always have one of two criteria that must be followed when deciding public policy: either make

²¹ Studies that reported on this connection include Krosnick and Kinder 1990), and Herera (1996). Putman (1976) also gives an overview of an extensive body of literature which suggests that elites are the principal source of major policy ideas.

decisions that are in line with mass attitudes, or else manufacture the required consent by influencing (modifying) the actual attitudes of the public. This process is the *modus operandi* of democratic systems and the reason why the issue of congruence between elite and popular attitude towards an issue is of such importance. Not only does the elite firstly need to influence the attitudes of the general public but, parallel to this process of attitude modification, the actual attitudes of the public must always be considered as a criterion in terms of which the elites must decide amongst the various policy instruments.

This raises the question of what power or influence elites have over public opinion. Many studies have shown that the elite have an extensive influence over public opinion. A growing body of literature suggests that what social and political elites say and do often exerts considerable influence upon citizens, opinion formation and policy formation²² (Domke, 2000: 1). Within this theoretical framework it is contended that, though elites may not actually create citizens' opinions, citizens encountering elite ideas will have mental constructs activated and will apply those constructs in political interpretations and evaluations²³ (Domke, 2000: 3).

Within this process elites are often in a position to introduce topics into societal discourse and then carry over associated cognitive elements. To the extent that individuals respond critically to the political ideas they encounter, they rely on 'contextual information' from elites about how different ideas 'go together' and thereby constrain one another

²² See in this regard Jasperson *et al.* (1998); Sniderman, Brody and Tetlock (1991); Watts, Domke, Shah and Fan (1999); and Zaller (1992).

²³ Domke (2000) goes as far as to suggest that in many cases citizens will strongly consider adopting the elite's political perspective.

(Converse, in Zaller, 1991: 1216). Thus elites have influence in deciding what the public thinks about²⁴ and, over time, influence the associations the public makes when thinking about those topics. Jasperson *et al.* (1998: 205) ask the pertinent question: where does the public get its information about issues and policy alternatives? Their answer is elite opinion, as distributed by the mechanisms of the media. McGraw supports this view when she states: 'Because events seldom speak for themselves...the official rhetoric of those actors who provide interpretations of political events may do as much, or even more, to influence public opinion than the policies themselves' (quoted in Kotzé, 2003: 8). The influence of the elite over mass opinion is especially strong when there is a high level of elite consensus, which, according to Zaller (in Kuklinski and Hurley, 1994: 731) produces mass consensus²⁵.

However, although there is no denying the role of elites in shaping public opinion, the notion that elites can change individual, short-term political or policy predispositions is questionable (Kotzé, 2003: 8). These predispositions mediate the public's responses to elite views, but are not in the short term determined by elites²⁶ (Kotzé, 2003: 8). In the case of environmentalism, which is a very new concept and issue in South Africa's political culture, the general population has not had enough exposure to the concept for elite attempts at influence to have a very extensive effect. This notion has varied implications for the focus of this study. If elite influence on the attitudes of the general

²⁴ From Cohen's famous appellation: The media [as the primary medium of elite perspective] does not tell the audience what to think but, rather, what to think about (1963).

²⁵ When elites disagree on a salient issue a 'polarization pattern' arises, which in fact leads to heightened political awareness amongst the citizenry and stronger political opinions in accordance with partisan lines (Zaller, 1991: 1231).

²⁶ Zaller states that these predispositions, which are at least in part a distillation of a person's 'lifetime experiences', are the stable, individual-level traits that regulate the acceptance or non-acceptance of the political communication a person receives (quoted in Kotzé, 2003: 8).

population towards environmentalism is limited due to the novelty of the issue, the actual attitudes of the general population need to be taken as more or less concrete markers in terms of which decisions on public policy programmes instruments need to be taken.

To summarize: public policy is to a very large extent the realm of elites, serving their interests and reflecting their values, one of which may be the welfare of the general population. It is expected that elite messages concerning environmental protection and policy may not have had a major influence on public attitudes on public attitudes.

1.5.4 Defining and analyzing the concept of environmentalism

In the broadest sense, the word 'environment' embraces the conditions and/or influences under which any individual or thing exists, lives or develops (South African Department of Environmental Affairs and Tourism: 2). These include the following categories of conditions and influences (South African Department of Environmental Affairs and Tourism: 2):

- The natural environment including renewable and non-renewable natural resources such as air, water, land and all forms of life;
- The social, political, cultural, economic and working conditions that affect the nature of an individual or community;
- The natural and man-made special surroundings including urban and rural landscapes and ecosystems and those qualities that contribute to their value.

Environmentalism can itself be defined as an approach to economic and ecological questions which stresses that environmental impacts such as pollution and loss of biodiversity must be taken into account when assessing the acceptability of human action (*Encarta Reference Library*, 2002). It is a social movement, underpinned by a specific philosophy, aimed at protecting the quality and continuity of life through the conservation of natural resources, prevention of pollution, and the control of land use (*Factmonster*, 2003).

What we know today as environmentalism is usually referred to as 'new environmentalism', which is broader in scope than 'traditional environmentalism'. Where traditional environmentalism assumed that no reference needed to be made to either individual or context in the analysis and addressing of environmental issues, new environmentalism is more aware of the human component in environmental issues (Scarlett, 1997: 2). New environmentalism is pragmatic, in the sense that each separate environmental issue is not approached from a purely objective perspective, but rather takes into account the people and the context involved that are all part and parcel of the search for solutions to environmental problems. Human incentives, for example, are included in any analysis of environmental concerns, for it is an intrinsic part of the human-environment situation that needs to be placed as a criterion for possible solutions to problems (Scarlett, 1997: 2). In this study environmentalism axiomatically refers to new environmentalism, which shows the development of the social movement to take into account a wider range of factors, conditions and approaches.

It is also vital to differentiate between environmentalism and ecology. Whereas environmentalism is a way of thinking and a social and political movement, ecology is a science²⁷ (Mazzotti, 2000: 1). Ecology can be defined as the study of the relationship between plants and animals to their physical and biological environments (*Encarta Reference Library*, 2002). Ecologists study populations and communities of living organisms, physiological and behavioural adaptations of species to their environment, interactions among species, and functions of ecosystems such as energy flow and nutrient cycling (Mazzotti, 2000: 2). Although the 'study of the object' and the 'movement with the objective' are often very interrelated, they are terms too often used interchangeably.

1.6 Significance of the Research

The significance of this study lies mainly in its focus on environmental attitudes that relate to behaviour, as opposed to attitudes themselves, which may or may not have any influence on behaviour. Also, by taking into account the various limitations placed on policy-makers by the socio-economic conditions in developing countries, this study will also make suggestions towards the formulation of policies that work within practical criteria.

1.7 Research Design

The methodology of this study will consist of a thorough literature review and extensive analysis of secondary data from the World Values Survey (South African leg) and the

²⁷ The term 'ecology' was coined by the German zoologist Ernst Haeckel in 1868, more than a century before the first Earth Day (Mazzotti, 2000: 1).

National Opinion Leader Survey (CICP) utilizing the Statistical Package for the Social Sciences.

Secondary data analysis, a type of research conducted with existing statistics, is the reorganization or recombination of already existing data in new ways to address a research question (Neuman, 2003: 37). The advantage of secondary data analysis is mainly eliminating the need to go out and do a survey oneself at an enormous expenditure of time and money (Babbie and Mouton, 1993: 264). Thus, it is cheaper and faster than conducting original surveys, and if the survey was done by top professionals, as is the case in this study, one can benefit from the expertise of these professionals (Babbie and Mouton, 1993: 265).

The main limitations of secondary data analysis lie with the question of validity. There is the possibility that a researcher may use secondary data that is inappropriate for his or her research question (Babbie and Mouton, 1993: 322). It is thus vital that a researcher considers the units in the data, the time and place of data collection, the sampling methods used, and the specific issues or topics covered in the data (Babbie and Mouton, 1993: 322).

This study utilizes existing attitudinal data obtained from the World Value Survey 2001 and the National Opinion Leader Survey 2000. The analysis is cross-sectional in that data obtained at a single point in time is employed to develop a descriptive-analytical picture of environmental attitudes in South Africa. Although individual opinions form the

foundation of this survey, the aggregate quantitative data are utilized to make inferences about society at large. During data analysis various statistical procedures will be utilized to monitor and analyze the nature of environmental attitudes in South Africa. Subsequently, an analysis of the public policy implications of these attitudes and, more specifically, the congruence between popular and elite attitudes, will be developed.

1.8 Chapters and Layout

The first chapter provides a brief literature review of the important of this study, as well as a historical and socio-economic contextualization of the issue of environmentalism in a country like South Africa. This chapter forms the introduction to the study, and also serves to clarify the ideas and concepts pertinent to this study. Some of these will subsequently be operationalized. Chapter Two will deal with the data analysis, findings and discussion. The survey designs of both the World Value Survey and the South African National Opinion Leader Survey will also be elucidated. Chapter Three will deal with the policy implications of the findings, aiming to engender a framework or criteria that are based on the attitudinal nature of South African society and would be of use to environmental policy-makers. This chapter will end with the study's conclusion as well as an indication of possibilities for further research.

1.9 Conclusion

This research will seek to engender a greater understanding of the conditions found in developing countries pertaining to environmental matters – both economic and social. Without understanding the context within which environmental issues exist, it is virtually

impossible to remedy the cause and symptoms of environmental degradation. The importance of the environment has for the most part not been understood in most developing countries, yet it is only a matter of time before environmental degradation will be the greatest challenge facing not only specific nations, but the planet as a whole. Policies need to be developed that find ways of tackling environmental issues in a context-specific way, instead of dealing with environmental concerns as objective, with general remedies that are considered universal in application and effect. Such an approach will only lead to an increased likelihood of failure of the programmes as well as the alienation of the poor populations of developing countries.

Chapter 2: Data Analysis, Findings and Discussion

2.1 Introduction

In Chapter One the importance of elite and public attitudes in public policy-making and implementation, specifically if they focused on environmental matter, was highlighted. By understanding the nature of public attitudes, one can develop public policies that have a higher chance of gaining public support and thus of being effective. This is true of specifically behaviour-orientated attitudes, which, as noted in the previous chapter, is a more valid measure of people's support for various environmental policy alternatives than their general attitudes. Willingness to contribute materially or financially, trade-offs between economic and environmental imperatives, as well as beliefs about the environment, are the focus of this study. Whilst the previous chapter focused largely upon developing the conceptual framework of this study, this chapter will entail a step-wise description of the statistical procedures as well as the results of the data analysis.

2.1 Operationalization

This study is based on secondary analysis research, which is the use of existing data, collected by other researchers, which are re-examined using various statistical procedures (Neuman, 2003: 37). In the case of this study, the data have been garnered from the World Value Survey 2001 and the South African National Opinion Leader Survey 2000 for the analysis of general population and elite attitudes respectively.

With the development of computer-based survey research and various concomitant data-analysing programmes and techniques, which has made possible the easy melding of pre-existing data to suit the focus of new research, the employment of survey data taken by others has become a very attractive option (Bless and Higson-Smith, 1995: 275). It has already proved itself as an invaluable and integral part of contemporary social research. Yet, as with virtually any methodological alternative, the use of secondary data analysis has its advantages and limitations. The main advantage is, of course, the elimination of the enormous expenditure of time and money that would have been necessary if one had to orchestrate a survey oneself (Babbie and Mouton, 1993: 264).

The limitations of using secondary data analysis lie firstly in the possibility that a researcher may use secondary data analysis that is inappropriate for his or her research question (Neuman, 2003: 322). This is why a researcher should carefully consider the unit of analysis in the data, the time and place of data collection, and the specific issues or topics covered in the data (Neuman, 2003: 322). A second danger lies in the possibility that the researcher may not understand the substantive topic. Due to the fact that secondary data are so comparatively easily accessible, researchers who know very little about the topic may use the data and make erroneous assumptions or false interpretations of the data (Neuman, 2003: 322). It is therefore imperative that a researcher fully grasps the topic he or she is studying before turning to the secondary analysis for further examination of the topic.

These limits or drawbacks all point to the issue of validity in secondary data analysis. One needs to be sure that the secondary data that one employs are appropriate to one's own research interest – whether the questions asked by the researcher who compiled the data provide a valid measure of the variable one wants to analyze (Babbie and Mouton, 1993: 265). For these reasons, the secondary data used in this study have been fully considered and judged for their validity with unmodified scrutiny.

2.1.1 The surveys

The Centre for International Comparative Politics (CICP) at Stellenbosch University has over the past decade conducted an in-depth analysis of the social, political and economic transformation taking place in South Africa. A longitudinal study on the attitudes and values of the country's elite formed one of the core elements of this project. Since 1990 five opinion-leader surveys (1990, 1992, 1993, 1995 and 1998) have allowed us to build up an extensive database on South African elite perspectives. The sixth of these surveys, the '2000 National Opinion-leader Survey' was completed in late 2000. Data obtained from the 2000 survey will be analyzed in this article.

2.1.2 The elite sample

A positional sample – the most widely used approach to elite sampling (Moyser and Wagstaffe, 1987: 30) – was used to select respondents for this particular survey. Such a procedure implies that individuals holding the most authoritative positions in influential institutions are approached to participate as respondents in this survey. This project has identified respondents in eight key sectors (see Table 1) - covering the public and private

spheres of South African society – to complete a structured questionnaire on some of the most pressing issues facing the nation.

The selection of the elite sectors was based primarily on the following criteria:

- The sector must be regarded as important by experts on the South African scene in terms of the power and influence it has on policy issues (for example, parliament, the civil service, the business sector, etc.); and
- The sector is regarded as important if it fulfils some other formal representative function (for example, churches or trade unions).

The market research company Markinor was contracted by the CICP to distribute and collect completed questionnaires – the parliamentary and agricultural sectors received their questionnaires by mail. (For a full list of sectors see Table 1.) Due to an initially low response rate among parliamentarians, a second batch of questionnaires was mailed, followed by a third that was distributed by fieldworkers of the CICP. From the original sample of 804, a realized response rate of 48.8% (N=393) was achieved²⁸.

Nearly 56% of respondents (N=211) named the ANC as their party of preference – an increase of 10.5% on the 1998 survey (the valid percentage is used here because 16 respondents out of the 393 refused to declare their party allegiance). Since the questionnaire was printed before the launch of the Democratic Alliance (DA), no provision was made for this particular grouping in the party category. Inferences regarding support for the DA were made by combining support for the Democratic Party

²⁸ For a full discussion of the methodology of the elite survey see Kotzé (2001).

Table 1: Elite respondents in the different sectors of society

Sector	Composition of Sectors	No. of Respondents	Percentage of respondents
1. Parliament	Available members of National Assembly	103	26.2%
2. Civil Service	The ten most senior officials in each government department	63	16.0%
3. Business	CEOs and Directors from top South African companies	54	13.7%
4. Media	Managers, editors and senior journalists of the print and electronic media	39	9.9%
5. Trade Unions	Most of the senior members of COSATU and its affiliates	42	10.7%
6. NGOs	Top managers and researchers in the NGO sector	62	15.8%
7. Churches	Executive members of South Africa's largest churches	21	5.3%
8. Agriculture	Executive members of national and regional agricultural unions	9	2.3%
Total Survey		393	100.0%

(DP), the New National Party (NNP) and the Federal Alliance (FA). Combined, the respondents supporting these three parties constitute 31% (N=119) of the sample. Of these, 35 were NNP and three DP supporters

It should be noted that, unlike public surveys, elite surveys should not be used to draw conclusions about the attitudes of a whole population. Their value lies in the ability to discern trends among the most influential decision-makers in both public and private sphere. The fact that some parties or racial groupings are over- or under-represented in this sample should therefore not detract from the usefulness of this study.

Concern may be raised about the fact that 'only' 56% of respondents reported support for the African National Congress (ANC), whilst the party drew nearly two thirds of the vote in the 1999 election. It should, however, be remembered that in sectors like business, the media, agriculture and to some extent the NG sector, supporters of the Democratic Alliance (DA) still occupy a disproportionate number of influential positions.

Furthermore, it must be mentioned that a relatively low response rate among parliamentarians (under 30%) and to some extent also among the civil service may have detracted from achieving a higher overall response rate and thus also higher support levels being indicated for the ANC.

2.1.3 The public sample

Data on the attitudes of the South African public were obtained from the World Value Survey that was conducted in March, April and May 2001. The total sample size

consisted of 3000 male and female respondents subdivided into the following sub-samples:

- 1303 interviews among black respondents;
- 899 interviews among white respondents
- 499 interviews among coloured respondents; and,
- 299 interviews among Indian respondents

The sample consisted of adults, aged 16 and older, residing in all nine provinces of South Africa. All Media and Products Survey (AMPS) 2000 figures were used as the basis of the sample design.

For blacks, the sample was drawn using the area probability method. First, the sample was stratified by area and then by suburb. Then the sampling points were determined by a systematic random selection, based on the AMPS figures per stratum. Third, a starting point per sample was selected at random. Squatter camps were included, but respondents living in hostels and mines as well as domestic workers were excluded.

The advantages of the area probability sample are as follows:

- It eliminates interview bias in the selection of the sample;
- Incidences can be measured;
- No pre-knowledge of the universe is necessary;
- Profiles are established; and
- Statistical accuracy of the results can be assessed.

Within a household all members were listed and the qualifying respondent was determined by means of a random selection grid, which is a modification of the Poliz grid. All efforts were made to interview this person. If this was not possible, even after three calls (including evening and weekend calls), the person was substituted with another respondent of the same gender and age, living in the same street.

For whites, coloureds and Indians the sample was an area quota sample, stratified by race, town and suburb. Sampling points were identified at random. The same procedure as that described above was applied to determine the sampling points. Age, gender and working status quota controls were applied at each sampling point. These methodologies ensure that the samples of respondents are representative for the universe within a statistical margin of error.

Face-to-face interviews were conducted with respondents who satisfied the selection criteria. Interviewing was conducted during the day as well as in the evenings and during weekends in order to ensure that both working and non-working people, young and old, were given a fair opportunity of being surveyed. All the interviews were conducted by experienced Markinor interviewers, who were of the same ethnic and language group as the respondent. They received a thorough briefing before commencement of fieldwork. A semi-structured questionnaire was used, which was translated from English into the relevant languages. Each interview was therefore conducted in the language of the respondent's choice. Showcards were used in the structured section of the questionnaire.

Markinor conducted a 26% back-check on all completed interviews. Finally, the sample was weighted to the full universe.

2.2 Findings and Discussion

As mentioned earlier in this study, past studies have shown that there is indeed a significant level of environmental awareness amongst the general population of developing countries. Diekman and Franzen (2000) have attributed this awareness to the fact that environmental problems are more discernable at community level in developing countries, where citizens directly experience the ill effects of environmental degradation.

In South Africa, for example, a large portion of the population resides in informal settlements, where environmental dilapidation is patently clear. The same study by Diekman and Franzen (2000) also concluded that these levels of awareness do not translate into a willingness and ability in public attitudes to give up something for the priority of environmental goals. People in developing countries are only environmentally aware because their poverty brings them into direct contact with environmental issues, but due to their economic situation they can do little to remedy the degradation. It is also this poverty that tempers their attitude towards the environment: the general population of developing countries are simply too poor to actually change their behaviour or give up material or financial resources for environmental protection and improvement, and many feel that issues surrounding poverty should enjoy policy cynosure.

It is this unwillingness or inability of the general population to give up material or financial resources for environmental improvement that should form the crux of environmental policy development. There can be a vast difference between environmental awareness and actual behaviour-changing concern, which means that it is of no use for elites and policy makers to simply increase the awareness of the general population towards environmental issues without considering how to invoke or enable an actual change in behavioural patterns. Also, and more to the point of this study, rather than taking the level of environmental awareness as an indicator in the judging and choosing of different environmental policy alternatives, policy developers should take the level of behaviour-changing concern (attitudes) as their starting point. In order to ascertain whether the general population of South Africa indeed has a low level of willingness to give up material and financial resources for environmental protection and improvement, as opposed to a significantly higher level of willingness amongst elite attitudes, as theory would lead us to propose, qualitative data were employed and analysed.

An index was created to measure the willingness and ability of the general population to contribute financially or materially to environmental improvement, which was also applied to the elite data, in order to ascertain the congruence between these two groups.

This index divided respondents' attitudes into three categories: 'active concern', conceptualised as a willingness and ability to contribute financially and materially to environmental goals; 'inactive concern': an unwillingness and inability to contribute

financially and materially to environmental goals; and 'neutral', designating attitudes that are of a hesitant or uncertain nature. By employing these two concepts, this study does not seek to analyze whether or not a group is environmentally aware, but rather whether a specific type of environmental awareness – one that indicates a willingness or ability to change behaviour that is harmful to the environment - is present. Two questions were employed in the construction of this index, both occurring in the World Values Survey and the South Africa National Leadership Survey²⁹.

In the World Value Survey, both questions begin with the request: *'I am now going to read out some statements about the environment. For each read out, tell me whether you strongly agree, agree, disagree, or strongly disagree'*. The first question is: *'I would give part of my income if I were certain that the money would be used to prevent environmental pollution'*. The second question is: *'I would agree to an increase in taxes if the extra money were used to prevent environmental pollution'*.

The index was constructed by allocating 1 point for 'strongly agree', 2 points for 'agree', 3 points for 'disagree', and 4 points for 'strongly disagree'. Given these two items, points ranged from a minimum of 2 and a maximum of 8. Scores ranging from 2 to 4 were placed in the category of 'active concern', scores of 5 were placed under the category of 'neutral', and scores ranging from 6 to 8 were placed in the category of 'inactive concern'.

²⁹ A fairly strong inter-correlation was measured. Constructing an index with the two items the Cronbach's Alpha for the elite was 0.7949 and for the public 0.7545.

In the South African National Opinion Leader survey these same questions appear, but on a five- point scale. Both questions start with the request: 'Here are a number of statements on the environment. Can you please tell me whether you agree strongly, agree, disagree, or strongly disagree' This scale has a middle value, labelled 'uncertain'. The two questions are exactly the same as in the World Value survey questionnaire. The index was constructed by allocating one point to 'strongly agree', 2 points to 'agree', 3 points to 'uncertain', 4 points to disagree', and 5 points to 'strongly disagree'. Given these two items, points thus ranged from a minimum of 2 and a maximum of ten. Scores ranging from 2 to 5 were placed in the category of 'active concern', scores of 6 were placed under the category of 'neutral', and scores ranging from 7 to 10 were placed in the category of 'inactive concern'.

Table 2: The congruence between elite and popular attitudes towards environmental concern

Type of environmental concern (%)			
	Active concern	Neutral	Inactive concern
General Public	40.4	19.6	40.0
Elite	57.7	20.2	22.2

As Table 2 indicates, there is a significant difference in the levels of active concern between the elite and the general public. The percentage of neutral responses are virtually identical (differing by 0.8%), while the levels of inactive and active concern differ by 17.3% and 17.8% respectively. The elite of South Africa are much more willing and prepared to contribute materially to environmental improvement than the rest of the

population. The data reveals that there is a very low percentage of the public who would invest their own resources in environmental protection or improvement. The elite will thus have to develop policies that take into account a public that is quite unwilling or unable to invest their own resources in environmental concerns.

If one cross-tabulates the type of environmental concern with income, it would appear that there is no strong correlation between income and type of concern. Table 3, presenting the data obtained from the general population sample, shows that the highest level of active environmental concern is found amongst the middle-income group.

Table 3: The type of environmental concern of the general public according to income

Type of environmental concern (%)						
Income (per month)	Active concern	Neutral	Inactive concern	Mean	Std. dev.	N
R 10 000+	36.1	14.4	49.5	2.1346	0.91592	1330
R1 400 – R9 999	41.1	19.1	39.8	1.9872	0.8993	5794
up to R1 300	40.7	21.1	38.2	1.9743	0.88791	6386

While elite and popular attitudes might differ significantly, the data reveal that income is not a corrolatory or a possible primary determining factor for environmental concern on an inter-group level. Those with the highest income among the general public -those most able to contribute financially to environmental improvement – have the highest level of inactive concern. This finding could be attributed to three possible conditions. Firstly, citizens in the higher income level do not often come into contact with environmental degradation (as the poor groups do). Thus they may consider environmental matters less important or simply less salient in their lives. Secondly, the higher-income group might not give environmental concerns priority because they feel that these are secondary to so many other socio-economic issues facing the country. When considering what the important issues are for poor people, the higher-income group may assume that the environmental issue is not one of them, and that the improvement of socio-economic conditions should demand cynosure. Thirdly, the notion of environmental degradation might still be too much of a novel issue to elicit a powerful response from most South Africans. As noted in the introduction of this study, the history of environmentalism in other developed country is long and, specifically in recent decades, environmentalism in these countries has become an important political issue for citizens and a platform for politicians and governments. In South Africa environmentalism was until very recently virtually ignored by the political system due to the salience of issues of race and economic development. The ENGOs of the past also did not succeed in raising any meaningful notion of environmentalism in the psyche of public and politics.

The fact that the lowest income group of the general population has such a high level of active concern *vis-à-vis* the other income groups could be attributed to the intensity of degradation experienced by the poor. Many of the poor are also directly dependent on natural resources and live in conditions where the degradation of these resources is patently evident. Thus it could be conjectured the poor may consider the improvement of these resources as a possible survival need.

Table 4 shows the type of elite attitudes according to income and also reveals a very low level of correlatory significance between income groups and active environmental concern. While the lowest-income group of the elites may show the lowest percentage of active concern, it also shows the lowest percentage of inactive concern, with 27.1% neutral. Sadly, it is impossible to compare the two groups precisely according to income due to the different categories employed by the two surveys. Yet some conclusions can be drawn. Although there appears to be a significant difference between elite and public scores, it would appear that this variation is not based primarily on income. The level of income shows no correlation between the types of environmental concern on an inter-group or intra-group level. Between the highest income category of the general public (R10 000+ per month) and the lowest income category for the elite (up to R150 000 per annum) there is a significant difference of 18.1%.

Table 4: The environmental concern of the elite according to income
Type of environmental concern (%)

Income (per annum)	Active concern	Neutral	Inactive concern	Mean	Std. dev.	N
R300 000+	58.7	16.7	24.6	1.6587	0.85006	126
R150 001 - R300 000	58.1	19.4	22.5	1.6438	0.82681	160
up to R150 000	54.2	27.1	18.8	1.6458	0.78108	96

Table 5 shows the differences in environmental attitude according to racial grouping³⁰. The white population of South Africa has the lowest percentage of active environmental concern, which should rule out any conjecture that environmentalism is a Western cultural phenomenon. The notion that environmentalism is determined or influenced by some set of cultural-ethnic values or tenets, or specifically as a European cultural phenomenon, is contradicted by the data.

³⁰ Race remains one of the most useful analytical categories. Owing to the legacy of the past, this variable still plays a major role in determining attitudes towards policy issues and can be seen as an intervening variable when it comes to party support. However, the use of terms such as African, white, coloured and Indian does not signify approval of the categorization of people into racial groups.

Table 5: The environmental concern of the general public according to ethnicity

Type of environmental concern (%)						
Ethnic group	Active concern	Neutral	Inactive concern	Mean	Std. dev.	N
Black	40.6	21.0	38.4	1.9771	0.88851	9395
White	32.5	16.9	50.6	2.1805	0.89382	2078
Colored	48.4	17.7	33.9	1.8545	0.89589	1505
Indian	44.7	10.5	44.7	2.0000	0.9468	532

It is also interesting to note that the white ethnic group, which has a higher average income level than any other ethnic group in South Africa, has the lowest level of active environmental concern. Once again, this might be because the white, affluent minority of South Africa simply has not had much contact with environmental degradation. These data also contradict the idea that environmentalism is imported from developed countries: the white population of South Africa, who have relatively closer ties to European nations than other population groups, show the lowest level of active concern. The higher socio-economic status of whites would also have given them more access to the values and opinions of the developed world through the media, which one could suppose would lead to a greater internalization of environmental ideas and a higher level of pro-environmental attitudes. Yet according to the data, this does not appear to be the case.

Another item was employed in this study, occurring both in the World Value Survey and the South Africa National Opinion Leader Survey. This question asks respondents to

choose between environmental or economic priority. In both the World Value Survey and the South Africa National Opinion Leader Survey, the question starts with the following request: *'Here are two statements people sometimes make when discussing the environment and economic growth. Which of them comes closer to your own point of view?'* The first statement reads *'Protecting the environment should be given priority, even if it causes slower economic growth and some loss of jobs'*; and the second question *'Economic growth and creating jobs should be the top priority, even if the environment suffers to some extent'*.

Table 6: Environmental vs. economic priority

Environmental/economic priority (%)		
	Environ. Priority	Eco. Priority
General public	35.8	64.2
Elites	41.5	58.5

The majority of the general public (64.2%) felt that economic growth should be given priority over environmental concerns, with only 35.8% feeling that the environment should be given priority over economic growth. The elite showed a greater tendency to give environmental concerns priority over economic matters; 41.5% of elites felt that the environment should be given priority, while 58.5% felt that the economic considerations should be above environmental. Yet these results do not show a significant difference in elite and popular attitudes as was the case in the concept of active environmental concern; in both the elite and the general public groups the majority considers the economy of the country to be of primary importance. Thus, when faced with a trade- off (an 'either/or')

situation, the elite and the general public would choose to give economic matters the priority. If it is to be one or the other, support would be given for economic concerns. This highlights an important point that any environmental policy or programme should take into account: the improvement or protection of the environment should not be framed as a trade-off situation, and should take into account the economic costs of policy alternatives and how these costs could be neutralized.

Table 7 below shows economic versus environmental priority of the general population according to income. Once again, it is difficult to deduce any correlation between environmental considerations and income

Table 7: Environmental vs. economic priority according to income (general public)

Environmental/economic priority (%)					
Income (per month)	Environ. priority	Econ. priority	Mean	Std. dev.	N
R10 000+	44.6	55.4	1.554	0.49726	1314
R1 400 - R9 999	30.8	69.2	1.6922	0.46160	6573
Up to R1 300	39.0	61.0	1.6103	0.48771	6368

While the highest-income group has the highest percentage of those prepared to give priority to the environment (most probably because they can afford to), the lowest-income group also has a very high level of environmental priority, possibly because many of the poor depend on natural resources for survival, and may see more clearly than

others the interdependence between the environment and survival, both economically and in terms of physical requirements.

Table 8 shows environmental versus economic priority of the elite according to income. There is also a lack of correlation between environmental priority and income, with the middle-income group having a significantly higher percentage of people willing to place environmental concerns above economic than any of the two other income groups.

Table 8: Environmental vs. economic priority according to income (elites)

Environmental/economic priority (%)					
Income (per annum)	Environ. priority	Econ. priority	Mean	Std. dev.	N
R300 000+	33.0	67.0	1.6705	0.47274	88
R150 000 - R300 000	58.1	41.9	1.419	0.49577	105
Up to R150 000	25.4	74.6	1.7458	0.43917	59

Table 9 reflects the environmental vs. economic priority according to income. The black group has the least percentage of people willing to trade economic for environmental priority. Here the white group shows the highest level of willingness – almost 50%.

Table 9: Environmental vs. economic priority according to ethnic group (general public)

Environmental/economic priority (%)					
Ethnic group	Environ. Priority	Econ. Priority	Mean	Std. dev.	N
Black	32.1	67.9	1.6793	0.4668	10579
White	47.1	52.9	1.5287	0.4993	1971
Coloured	45.4	54.6	1.5463	0.4980	1479
Indian	40.8	59.2	1.5922	0.4919	515

The fact that black people are less prepared to sacrifice economic development is most probably because black people would consider their jobs – mostly unskilled labour – to be the first to suffer in an environment versus economy trade-off situation.

A third indicator was used in this study to analyze the congruence of mass and elite attitudes towards environmentalism. In both the World Value Survey and the National Opinion Leader Survey respondents are asked if humans should master nature or coexist with nature. In both surveys the question reads as follows: *'For each of the following pairs of statements, please tell me which comes closer to your own views:'* the first statement reads *'Human beings should master nature'*; and the second *'Humans should coexist with nature'*.

Table 10: Humans should master nature/co-exist with nature

Humans should master/co-exist with nature (%)		
	humans should master	humans should co-exist
General public	36.0	64.0
Elites	9.3	90.7

As Table 10 indicates, there is an immense incongruence between elite and mass attitudes towards the relationship between man and nature. A large portion of the general public (36%) feel that the relationship between man and nature should be one of subordination, while only a very small percentage of the elite (9.3%) feel that humans should rule over nature. This indicator, although not based in behaviour-orientated attitudes, does provide us with a good idea of the general conceptual structure of the general population towards the environment in South Africa (and thus to a certain extent in other developing countries). Most of the general public see the environment as a means to an end, the end being affluence. Like the tractor ploughing the land, nature is another tool in man's repertoire, to use or discard in its quest for gain and economic security.

Table 11 shows the attitudes of the general population towards man's relation to nature according to income. In this case there appears to be a correlation between income and attitude, with the 42.3% of lowest income group believing that man should master nature. A possible explanation of this correlation is in the fact that the poor are most often directly dependent on their natural environment for survival. Thus they may see the environment as a means and their own individual survival as the end. In many cases, it could be assumed, the environment is considered by the poor as the only means they have

to survive. For the poor co-existence might simply not be an option. As stated earlier in this study, the poor are forced to focus on short-term survival needs and in such a situation, exploitation is the only real alternative.

Table 11: Humans should master/co-exist with nature according to income (general population)

Humans should master/co-exist with nature					
Income (per month)	Master Nature	Coexist with Nature	Mean	Std. dev.	N
R10 000+	19.9	80.1	1.8015	0.39903	1350
R 1400 – R9 999	32.9	67.1	1.6706	0.47002	6640
Up to R1300	42.3	57.7	1.5766	0.49414	6693

As far as the elites are concerned, Table 12 shows that, although there appears to be a correlation between income and attitudes towards the relationship between man and nature, the overwhelming majority of all income groups feel that man should co-exist with nature. It must be remembered that the income of even the lowest-income group of the elites is still far above the average income in South Africa, which leads one to suppose that income, and thus independence of the environment for direct survival needs, also plays a role among the elites. Of course this does not completely explain the vast difference between the elite and the general public on this subject, for even among the highest-income group of the general population there is a much higher percentage of attitudes that indicate that man should master nature than amongst the lowest-income

group of the elite. Thus, as stated in the introduction, not only income, but also education and quality of life needs can be assumed to come into play in the shaping of these attitudes.

Table 12: Human beings should master/co-exist with nature according to income (elites)

Environmental/economic priority (%)					
Income (per annum)	Master Nature	Coexist with Nature	Mean	Std. dev.	N
R300 000+	7,2	92.8	1.9074	0.25953	125
R150 000 - R300 000	8.9	91.1	1.9114	0.28508	158
Up to R150 000	12.6	87.4	1.8737	0.33397	95

Table 13 shows the attitudes of the general public towards the relationship between man and nature according to race. Attitudes of man's superiority and dominance over nature occur most frequently amongst the black population, with 41.7% feeling that man should master nature. The white population has the lowest frequency of this attitude - only 16.5%. This distribution can to a great extent be explained by the fact that the black population has the greatest percentage of those living in poverty and it is also the population group that is most dependent on the environment for short-term survival needs.

Table 13: Human beings should master/co-exist with nature according to race (general public)

Humans should master/co-exist with nature (%)					
Ethnic group	Master nature	Co-exist with nature	Mean	Std. dev.	N
Black	41.7	58.3	1.5834	0.49301	10416
White	16.5	83.5	1.8349	0.37136	2126
Coloured	27.5	72.5	1.7251	0.44658	1619
Indian	29.5	70.5	1.705	0.45649	522

By analysing the data, it is apparent that there is evidence in favour of the hypothesis of this study. Clearly, there is a significant incongruence between the attitudes of elite and popular attitude towards environmental issues in South Africa. Elites, with their disproportionate influence over the policy-making process, would like to see environmental issues to appear on the government's policy-making agenda. Elites are much more actively concerned with environmental issues and more prepared to sacrifice materially or financially for the pursuit of environmental goals to a much larger extent than the general public of South Africa.

Elite and popular attitudes towards environmental issues are similar, however, when environmental concerns are framed as being a trade-off between economic considerations. Thus no group will push for policies that benefit the environment at the expense of the economy. If a small group of the elite do push for such policies, they will most likely fail because of a lack of support both amongst the majority of the elite and the general public.

The main point that therefore needs to be taken into consideration in order for any form of environmental policy to be successful is this unwillingness of the populace to contribute financially towards environmental improvement and protection. Elite and government will have to act simultaneously to change the current attitudes of the general population (if and where possible) as well as develop policy instruments that fit the criteria created by these current attitudes if they have any hope of successfully addressing environmental issues. The extent of the congruence of the attitudes of the elite and the general public towards environmental issues must determine the type of policy employed and the policy instruments used. The following section of this study will give a general outline of these policy implications.

2.3 Concluding

To summarize the findings of this study: the general population of South Africa has a very low degree of willingness and/or ability to contribute materially or financially to environmental improvement – conceptualized as active concern in this study. This is especially true in relation to the elites of the country: while over 57% of elites show active concern, only 40.4% of the general public show such concern. Interestingly, the level of active concern in the general population does not vary according to income, although this is true to some slight extent for the elite. It was also found that, of the general population, whites have the lowest proportion of those with active concern of all the population groups in South Africa – 32.5%. The colored population has the highest proportion: 48.4, followed by Indians (44.7%) and blacks (40.6%).

This study also looked at the environmental attitudes within a trade-off situation between economic and environmental imperatives. The data revealed that, when faced with such a trade-off, both the elite and the general population overwhelmingly support economic imperatives. Interestingly, the white population has the highest proportion of those who feel that the environment should have a higher priority than economic gain – 47.1%, with the black population having the lowest – 32.1%. As in the case of the previous indicator, income does not appear to be a causal variable of this attitude.

The general beliefs of both these groups towards man's relationship to nature were also analyzed. It was found that there is a very large incongruence between the elite and the general population in this indicator: 36% of the population felt that man should have mastery over nature, while only 9.3% of elites felt this way. Data show that this attitude does vary with income: the lower the income group, the greater the proportion that feels that man should master nature. The black population was the population group who had the highest proportion of those holding this view – 41.7%, and the white population the lowest – 16.5%.

As mentioned in the introduction of this study, the attitudes of the elite and the general public have a large number of implications for public policy. Public policy needs to take these attitudes into account in order to increase its chance of success. In the following chapter a criterion is developed, based on the attitudes of the general population, which

public policy-makers should take into account in order to increase the chances of optimum policy performance.

Chapter 3: Policy Implications

3.1 Introduction

In the previous chapters the case was argued and sustained that the attitudes of the general public on environmental matters are different from those of the elite of South Africa. The general population has a much lower willingness and ability to contribute financially to environmental improvement. It was also argued that policy-makers need to take into account the nature and dimensions of the attitudes of the general public in order to increase a policy's likelihood of success. This chapter will focus on developing a criterion for environmental public policy which takes account of the attitudes of the general public as revealed through the survey data. This criterion hopes to give policy-makers certain prescriptive guidelines that would increase the likelihood of developing successful and effective public policy.

3.2 Poverty and environmental policy

First and foremost, it is vital that policy-makers understand the relationship between poverty and the environment. As shown in the data, the general public of South Africa are not about to contribute materially or financially to environmental improvement, and one of the most important reasons for this attitude is the fact that the public is simply too poor to prioritize environmental issues. The alleviation of poverty should be seen as a prerequisite – as part and parcel – of environmental policy. It should be remembered that when poor people compete for scarce resources with no other alternatives, natural resources can very easily be ruined (Kotzé and Van Wyk, 1994: 33). The environment of

developing countries will often be exploited to fulfil the short-term needs of the poor, who cannot help but pollute and degrade their environment in order to fulfil their short-term survival needs (World Development Report, 1992: 30). To quote from the Report of the World Commission on Environment and Development (1987: 8):

Poverty itself pollutes the environment, creating stress in a different way. Those who are poor and hungry will often destroy their immediate environment in order to survive. They will overgraze grasslands; they will overuse marginal lands; and in growing numbers they will crowd into congested cities.

Yet this road runs both ways: tackling environmental degradation is an integral part of effective and lasting poverty alleviation (Linking Poverty Reduction..., 2002: vi). As pointed out in the World Development Report (1992: 2), without adequate environmental protection, development is undermined; without development, resources will be inadequate and environmental protection will fail.

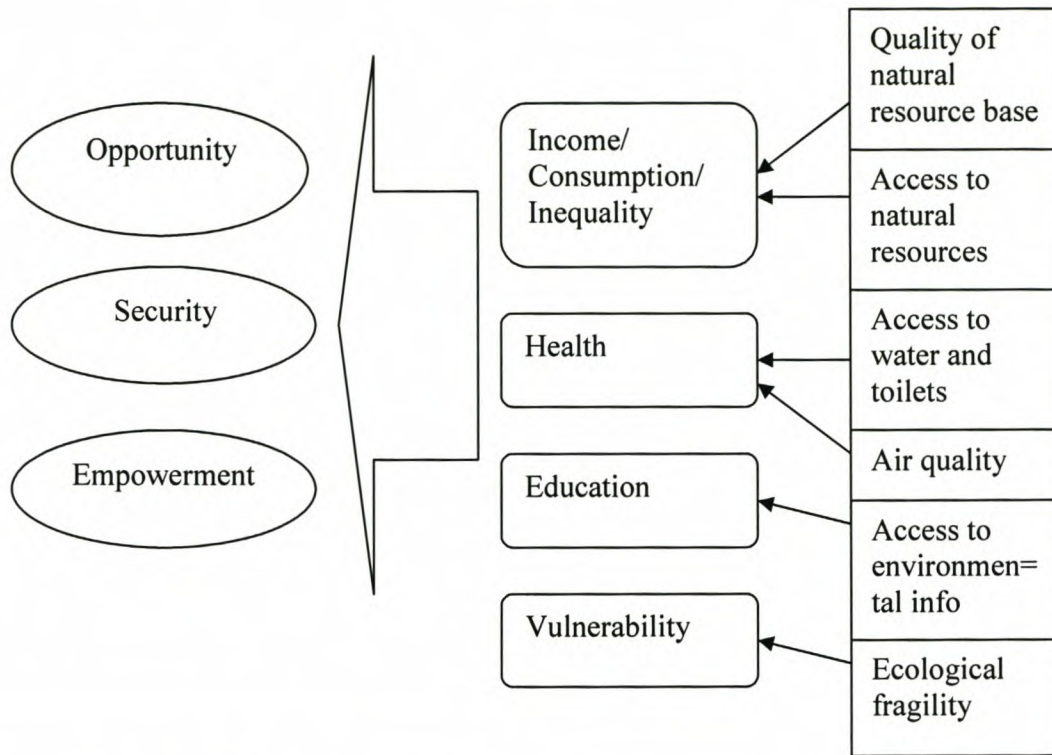
Poverty and environmental degradation are intertwined. This is a fact that any environmental public policy must take into account. The attitudes of the general public reflect their inability to see this interdependency – being faced with so many immediate emergencies and priorities. Thus public policy-makers need to understand this situation and try to remedy it by developing conditions within which citizens can contribute to the improvement of their environment without such contributions hindering their economic survival. Simultaneously, environmental public policy should also aim at fostering a

public understanding of the interrelatedness between the environment and poverty, between environmental and economic goals. What is good for the environment must be good for the poor if it is to be truly successful, and vice versa.

Figure 1 shows the interrelatedness of poverty and the environment. Yet the figure does not only show environmental degradation as relating to poverty - it actually notes the relationship as *causal*. If one talks of improving the conditions of the poor, environmental issues must be taken into account. The environment is an economic issue.

Unlike the rich, the poor of a country cannot afford to protect themselves from contaminated water; in cities they are more likely to spend much of their time on the streets, breathing polluted air; in rural areas they are more likely to cook on open fires of wood or dung, inhaling dangerous fumes; their land is more likely to suffer from soil erosion (World Development Report, 1992: 2). The poor may also draw a large part of their livelihood from unmarketed environmental resources: common grazing lands, for example, or forests where food, fuel, and building materials have traditionally been gathered (World Development Report, 1992: 2). The loss of such resources may particularly harm the poorest of the poor (World Development Report, 1992: 2).

Figure 1: Schematic representation of dimensions and determinants of poverty



Source: Bojo *et al.*, 2001: 6

It cannot be assumed that environmental improvement can be postponed until growth has alleviated income poverty and rising incomes make more resources available for environmental protection (Linking Poverty Reduction..., 2002: 3). Environmental goods and services are of extreme importance to especially the poor, for they contribute not only to their survival but also to their opportunities for moving out of poverty (Linking Poverty Reduction..., 2002: 3).

For the poor the issue of health specifically is very closely tied to environmental degradation; they are the ones who suffer most when land, water and the air are polluted

(Linking Poverty Reduction..., 2002: 8). Air pollution, low standards of water sanitation and many other negative environmental factors are responsible for tens of millions of deaths each year worldwide (Bojo *et al.*, 2002: 8). Indoor air pollution caused by the burning of traditional biomass fuels (wood, dung, crop residues) for cooking and heating affects 1 billion people around the world, resulting in the premature deaths of 2 million women and children each year (Linking Poverty Reduction..., 2002:16).

One way of both alleviating poverty and managing the environment lies in enhancing the assets of the poor (Linking Poverty Reduction..., 2002: 4). This can be accomplished by:

- Strengthening the resource rights of the poor by reforming policies and formal and informal institutions that influence land and natural resource access, ownership, control, and benefit-sharing, with particular attention to resource rights for women (Linking Poverty Reduction..., 2002: 4);
- Enhancing the capacity of the poor to manage the environment (which would include conservation and sustainable use of land, water and biological resources, and access to clean energy, water and sanitation services) by strengthening local management arrangements and capacity and by supporting women's key roles in managing natural resources (Linking Poverty Reduction..., 2002: 4);
- Expanding access to environmentally sound and locally appropriate technology (for example, crop production technologies that conserve soil, water agrobiodiversity) by improving protection of and access to indigenous knowledge and technologies, improving incentives for pro-

poor technology development, and by involving the poor in technology research, demonstration and dissemination (Linking Poverty Reduction..., 2002: 4);

- In order to truly garner the support of the general population for environmental initiatives the issue of the environment should be closely related to the issue of poverty, and environmental issues that matter to the poor should be the primary target of environmental policies (Linking Poverty Reduction..., 2002: 1). In order for an environmental policy to be effective, it needs to reflect the priorities of the poor (Linking Poverty Reduction..., 2002: 2). Supportive policies and institutions are needed, including access to information and decision-making that expands the opportunities of the poor to invest in environmental improvements that can enhance their livelihoods (Linking Poverty Reduction..., 2002: 2).

3.3 The potential distributive effects of environmental policies

The survey data have shown that the elites of the country are much more willing to contribute to financial improvement, while the general public are more uncertain. It is thus necessary to reassure the public that environmental policies are for the benefit of the entire country, not merely the wealthy. In order to this, any environmental public policy needs to take into account the potential distributive effects inherent in many

environmental policies.

Available evidence suggests that the distributive effects of the most commonly employed environmental policies, those of taxation and industrial regulation, slant towards being 'pro-rich' (Baumol and Oates, 1975: 245). Both the transitional and continuing costs of such environmental programmes will fall most heavily on those in the lower income stratum. The most significant transitional costs will be a loss of jobs (Baumol and Oates, 1975: 245). In order to adhere to environmental regulations and still remain competitive, industries will be forced to cut production costs, which in turn translate into job cuts. The higher income stratum has greater occupational mobility, while the lower-wage employees do not have such a wide range of employment options.

The most significant continuing costs of such policies will be the rise in the relative prices of certain goods whose production involves substantial external costs (Baumol and Oates, 1975: 246) - a consequence that will impact most heavily on those who already live without adequate means or live close to a state of chronic insolvency. As just stated above, environmental policy will be not as effective as it could be if it addresses poverty and the environment as interdependent issues.

Not only should policy-makers take into account the distributive effects of specific policies by developing strategies that incorporate methods for neutralizing the more serious distributive consequences of environmental programmes, they should also take into account the broad medium- and long-term requirements of successful government policy (Bethlehem and Goldblatt, 1997: 6).

The medium-term elements should include defining methods for the internalization of the environmental costs of production, building indicators of progress towards sustainable development into both firm-level and national accounts and developing new and innovative approaches to industrial production (Bethlehem and Goldblatt, 1997: 6). The long-term elements should incrementally engender a change in attitudes of consumption, consumerism and lifestyle that is part of a reorientation of economic patterns (Bethlehem and Goldblatt, 1997).

An important way of neutralizing the distributive effects of environmental policies and engendering support for such policies is by developing labour-intensive environmental programmes. Clean-up operations could, for example, create employment while at the same time address an environmental problem.

3.4 Start at local level

A great deal of autonomy should be given to local-level administration to make decisions about environmental policy and its implementation, including the areas which should receive priority. There are three main reasons for this. Firstly, it needs to be remembered that environmental issues tend to differ greatly on the basis of local characteristics.

Government cannot simply create an overarching set of national environmental policies and programmes (although this is also required) without taking into account the specifics of the local, which vary in terms of geography, demography, financial resources, type and complexity of environmental issues, as well as the culture of the community. This should be noted especially in the context of the poverty environment, which is always dynamic

and context-specific. This relationship is reflective of both geographic location and scale and the economic, social, and cultural characteristics of individuals, households, and social groups (Linking Poverty Reduction..., 2002: 9).

Different social groups give priority to different environmental issues. In rural areas poor people are especially concerned with secure access to and quality of natural resources – arable land and water, crop and livestock diversity, fish and bush-meat resources, forest products and biomass for fuel (Linking Poverty Reduction..., 2002: 9). For the urban poor, water, energy, sanitation and waste removal, drainage and secure tenure are key concerns (Linking Poverty Reduction..., 2002: 9). Poor women regard safe and physically close access to potable water, sanitation facilities and abundant energy supplies as crucial aspects of well-being, reflecting women's primary role in managing the household (Linking Poverty Reduction..., 2002: 9).

Secondly, and more important to the topic of this study, by giving local policy-makers a degree of free range, one creates a climate of participation in the policy-making process, which is absolutely necessary if one wants to manufacture consent among the community for environmental programmes. Engendering participation will also lend legitimacy to government policy, which is vital if the government already faces the negative attitudes of the majority of the public for spending public funds on environmental issues. It must be remembered that it is often the motivation and commitment of communities that see an environmental project through to completion (Steer, 1996: 5). Also, local citizens are often better able than government officials to identify priorities for action, and

communities often know about cost-effective solutions that are not available to governments (Steer, 1996: 1). By enabling community participation, government can thus simultaneously engender support and increase the effectiveness of its policy.

Interest group participation, like trade unions, local business organizations, and other actors, should be brought into the policy-making process. The 1992 World Development Report (93) also lists another three main advantages in involving local actors:

- Community participants give planners a better understanding of local values;
- Participatory approaches win community backing for project objectives and help with local implementation; and
- It helps resolve conflict over resource use.

Also, by encouraging specifically the appropriate private-sector involvement through the strengthening of government and community capacities to partner with the private sector, environmental services can be expanded. This can be done by providing incentives for local enterprise development based on the sustainable use of biodiversity such as community-based eco-tourism or the sustainable harvesting of natural products (Linking Poverty Reduction..., 2002: 5).

Thirdly, by addressing environmental issues at a local level, citizens become more aware of the positive effects of such policies. Local-level policies give citizens a more informed and positive notion of the actions of government in dealing with environmental issues, for

they directly experience the benefits of such policies. The notion of empowerment is very important here: the giving of responsibility and powers for environmental management to civil society (South African Department of Environmental Affairs and Tourism, 1996: 4). Empowerment could allow communities to, for instance, manage communal lands, forest or marine resources. It could also lead to the recognition of existing skills and help organizations to develop the skills and knowledge needed for environment management. When communities are empowered, natural resources can serve as a platform of economic opportunity onto which social capital can be built and income-generating schemes can be combined with measures that enhance the environment (Bojo *et al.*, 2001: 14). Simultaneously, such leeway for participation also promotes the education of the general population about environment issues, a point that will be returned to.

3.5 Get priorities straight

Government should guard against favouring a broad, shallow and expensive approach to environmental issues, as opposed to establishing key policy areas (Steer, 1996: 2). As shown in the data, the general public are very unwilling (or unable) to contribute materially to environmental policy, therefore priorities that will show short- and long-term benefits to many citizens (a utilitarian approach) will produce the most popular policies. Instead of trying to address environmental problems in general, the government should identify the most critical environmental issues, develop a ranking order for these issues and acting accordingly. The working criteria for identifying and ranking environmental issues should be based on the extent to which an issue directly affects the welfare of large numbers of people, specific examples including policies dealing with

unsafe water, inadequate sanitation, soil depletion, indoor smoke from cooking fires and outdoor smoke from coal burning (World Development Report, 1992: 2,45). The government should guard specifically against creating policies that will benefit mainly the affluent sectors of society. What is required is the development of general support for environmental policy.

3.6 Environmentalism as a working principle

As far as protecting the environment is concerned, prevention is better and cheaper than cure. As the data show, popular support for environmental policy is low, specifically for expensive policies. Thus policy costs should be kept to a minimum by taking the environment into consideration in every sphere of government activity. In developing any policy the government should always take into consideration all possible consequences that the policy may have on the environment, whether this concerns housing, transport or land reform. Reactive environmental policy is much more expensive and less effective than having environmental policy as a standing principle in developing other policies.

3.7 Education and the dissemination of information

The dissemination of information should be considered one of the most effective policy tools for a government hoping to effectively implement policies that do not have the initial support of the public. This can produce the required level of consent and is also highly useful in changing the behaviour of citizens. Many environmental problems are the direct result of ignorance, a state of affairs that is unacceptable. In the end the success

of any environmental policy will be measured by the extent to which it engenders sustained behavioural change, which can only be done through invoking a paradigm of social learning. By communicating information and educating the public, governments would greatly improve public understanding of environmental issues and change environmentally damaging traditions and habits (South African Department of Environmental Affairs and Tourism, 1996: 4). The mass media should thus be considered a powerful ally by the government in its promotion of environmental goals. When the public has a well-informed understanding of environmental issues, there is a better prospect for developing positive rather than purely defensive policies.

Educated citizens are also more likely to accept the costs and inconveniences of environmental policies (World Development Report, 1992). To quote Bernard and Armstrong (1999: 47):

Interventions to develop integrated economic, social, and environmental policies and the structures and processes that sustain their implementation should be fundamentally understood as learning events. These learning events enable people from diverse communities to acquire information, develop skills for analysis, challenge old values, and adopt new attitudes.

Furthermore, informed public opinion can also play a powerful role in exposing and holding accountable private firms and government agencies that abuse government

(Steer, 1996: 5). Thus, the public can play a watchdog role which could help government in achieving its environmental goals.

3.8 Future research

The fact that environmental values research, in conjunction with empirical quantitative data analysis, is still somewhat of a rarity in much of the developing world implies that much still needs to be done. The direction of the research can be classified into two categories. The first direction in which future research could be aimed would entail focussing on other developing countries, specifically in Africa. In many of these countries environmental problems are more severe than in South Africa and there are also even fewer resources to address these issues. Thus future research could focus on the nature of public and elite attitudes in these countries and the way that policies could be developed to deal with these specific contexts and circumstances.

The second category of future research entails heading towards increased emphasis on South Africa. In order for public policy to be successful, a degree of feedback is required, and future studies could focus on the way that environmental policies change the public's attitudes towards environmental matters. On the whole future research could focus on how environmental attitudes change over time and the variables contributing to this change.

On a methodological level, future research could focus on designing better measures of environmental attitudes. In most surveys scant attention is paid to what the public *expects*

of the government in relation to environmental policies, and what the environmental priorities of the public are. Such studies could foster a greater understanding of the context within which public policies must operate as well as the direction that environmental policy needs to take.

3.9 Conclusion

This study found that the general population of South Africa is either unwilling or unable to contribute financially towards resolving environmental issues, specifically in relation to the willingness and ability of the elite. The difference between elite and popular attitudes towards environmental issues has a wide range of implications for policy formation and implementation for it creates certain basic requirements that must be fulfilled. The most specific of these requirements is the recognition of the relationship between environmental degradation and poverty. For any environmental policy to be successful, it must take note of the needs and situation of the impoverished. The nature of popular attitudes also directs policy-makers to employ policy instruments that will simultaneously promote the manufacturing of consent for environmental policies, as well as be accepted by the general public. Cost efficiency, for one, should be a working principle, as well as taking into account the possible detrimental effects of policies on economic situations.

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