The challenges faced the sustainable environment: the case of contending developmental ideologies in Azania[i] (South Africa)

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Abstract

This paper will attempt to scrutinise the bases of the current interventions that are been adopted when dealing with issues affecting the environment practitioners especially those based in Azania and Africa in general. It looks at the changes that have taken place in the post apartheid era that signalled the new epoch in the country's welfare history. The paper will revisit various approaches of interventions in relations to meeting challenges experienced in the environment world in the country.

In understanding various approaches, the paper will look at Vexliard (1968) theories such as the autoplastic and alloplastic notions. Lastly, the paper will examine the current environment practices and their implications towards the developmental of sustainable environmental policy in Azania, holistic environmental education approach in meeting community daily livelihoods in view of poverty and the unemployment that is ravaging the vulnerable communities in the country.

Introduction

This paper attempts to scrutinise environmental development in South Africa, after a period more than a decade of 'freedom' that is highly celebrated. This paper looks at some of the environmental intervention theories that are used by various environmental practitioners and various communities and their impact towards sustainable environment. The paper proposes some approaches that environmental practitioners can consider in meeting some of the challenges facing the environmental changes at present.

This paper attempts to understand the impact of development environment that were practices by the apartheid regime in comparison with the present practices that are used by Azanian government. Before, I endeavour to what this paper is trying to highlight, I will start by defining the meaning of what is meant when one speak about the sustainable environment. I will start by defining what the term environment means. The Merriam-Webster online

dictionary, first definition of an environment cites the situation, things, or settings by which one is facing. Secondly, it also refers to a multifaceted of physical, chemical and biotic factors (such as climate, soil, and living things) that act upon human being or an ecological community and eventually determine its form and survival and the comprehensive of social and cultural conditions that manipulate the life of an individual or community. Thirdly, it refers to the position or features of a linguistic element in a progression such as a computer interface from which a variety of work are perform. There is a need to revisit what it means when one talks about the sustenance of what is discusses above. Therefore, I will argue that in simple terms I will argue that it refers to a maintenance and continuation of one the conditions that defines above circumstances and that is highly influenced by the approach which the stakeholders adopt in facing challenges that continue haunts the previously disadvantaged community in Azania.

Background

Azania has been populated at least the for than 7000 years, and people have used the natural resources for food, shelter, energy, and other needs. Despite the fact that indigenes of the country were able to manage the environment effectively but that has changed over the years. First reason that led to such change is the colonisation that brought about change never experienced before. This development had a great influence towards sustenance of environment; as it tended to be partial towards western values and cultures. This tended to be a prolonged historical foreign intervention in the name of environmental protection and management in Africa. Colonisers adopted various strategies for example; indigenes forced off their lands and dispossessed the basis of their livelihoods in order to create golf courses, game parks to suit the hunting and wildlife of European colonisers (Anderson and Grove, 1987; Neumann, 1995b; 1996, Schroeder, 1999). Those 'environmental management' strategies took away the environmental management the indigenes have been mastering for many years through their small scale for subsistence cultivation and pastoralists methods. Again in southern Africa, British colonial administrators, changed and forced cultivation method of contour ploughing, ridging and other soil improvement techniques compulsory, and privatize wells and boreholes in the interests of rationalizing water use (Beinart, 1984; Peters, 1987, Schroeder, 1999:359).

Leach and Mearns (1996) argues that the pattern of such environmental management indicates that it has often been determined from outside African borders in harmony with prevailing international political economic conditions or shifting ideologies of environmental management. Further colonisation African interior by trading companies under the political economic conditions that prevail in the latter decades of the nineteenth century that went hand in hand with economic botanical expeditions meant to identify and protect the interests of the colonisers in disguises for medicinal purposes (Brockway, 1979). This ecological justifications used to restrict African populations the so-called 'native reserves' after the turn of the century effectively precluded Africans from continuing their interventions that prove effectiveness and forced them rendered their labour to be available for colonial enterprises

(Callinicos, 1990; Berry, 1993; Hodgson, 1995). Again, other environmental policies such as forest management policies that disguise to meet the energy need of colonial armies during the Second World War (Cline- Cole, 1993; Schroeder, 1999:360).

For the last century last century, this has developed the differences in wealth among the people of Africa and Azania not exception and that has pressurised natural resources. This type of environmental development pattern tends to link consumption of resources by various households.

Table 1- Levels of resource consumption and waste generation pattern in Azania

Area	Consumption Patterns				Waste
	Access to floor space	Water Consumption	Electricity Consumption	Car ownership	Waste generation
Suburban	33m²	750l per person per day	900kWh per month	490 car per 1000 population	0.8 – 3 kg capita per day
Township	9m²	50l per person per day	83kWh per month (prepaid card system)	30 car per 1000 population	0.2 – 0.8 kg capita per day
Informal settlement	4 –5m²	< 50l per person per day	As above where settlement formalised		< 0.2 kg capita per day

Source: Napier, 2004

The more prosperous people tend to consume more resources and generate more waste, on a commercial and domestic level. Wealthier people, for example, tend to use more resources such as energy and water, and commercial agricultural and industrial development transforms natural habitats, and generates wastes and pollution. Table 1 above confirms this by showing how the level of resource consumption and waste generation between different household in the post apartheid era still endorse the fact that today. For example, Table 1 shows that various household consumed different amounts of resources and waste, i.e. – suburbs access about 33m² of space and waste generation that amounts to 0.8 – 3 kg capita per day. Whilst township access 9m² of space and generate about 0.2 – 0.8 kg capita per day and informal settlement access 4 –5m² of space and generate less than< 0.2 kg capita per day (Napier, 2004).

Therefore, this means more people means greater demands on the natural resources and environmental services, as well as increasing the amount of waste and pollution generation. There has also been an enormous movement of people to urban areas, both from rural areas and from other countries. Poor people exert different environmental pressures, cultivating unsuitable areas of land, overgrazing the veld, and removing large quantities of wood for fuel. This concentrates the pressures on the environment, and lead to problems of poverty, sanitation, and pollution directly affecting human health and quality of life. At the same time the population size has grown exponentially, reaching a present total of over 40 million and this has led to a greater attention both nationally and internationally on sustainable development. This means meeting social needs, for present and future generations by sustainable development [ii] (http://www.environment.gov.za/soer/nsoer/issues/social/index.htm).

Environmental Interventions and developmental strategies

The twenty first century saw changes that have arisen from both national and international drivers, and impacts on redirection of resources within the country from 'traditional conservation approach' to people-centred approach on sustainable environmental management. This approach designed is within the overall government objectives of socio-economic growth and development, alleviation of poverty, reduction of unemployment, and redress of inequity, to ensure sustainability of resources and ecosystem services for future generations (Fakir, et al, 1999).

There are differing views on the dawn of democracy in Azania in 1994, as others one hand argue that the participation of stakeholders and public has increased in policy formation. In particular, it has raised the level of public hopes to promote policy aimed at achieving sustainable environmental development rather than serving narrow group and sectoral interests (Desai, 2002). Other view argues that the state pays lip service when it comes to involvement of communities in decision-making. In addition, the polarisation of public participation that left a huge gap of theory and practice (Benjamin, 2006). Others argue that government fails to link citizens with the institutions and processes of the state, affecting the quality of life and resulting in reduced accountability on realities on issues of sustainable environment and that lead to what is termed as the "democracy deficit" (Hicks, 2006). Furthermore, racial access is still a predominant pattern of households inn the country, largely conforms to the characteristic smaller, previously, and still predominantly, white, well-serviced, suburban component occupying cores within larger, largely black peri-urban and, in some cities, rural settlements arranged on the historical township model" (Energy Towards Inclusive Cities, 2006).

International drivers include the many conventions and agreements, which have developed various strategies to address the many environmental problems that transcend national boundaries. In responding to this challenge led to a worldwide adoption of Agenda 21

in Rio in 1992, a host of new international conventions and agreements that emerge out of such interactions. The most important of these, from an environmental perspective, are the so-called "sustainable development" conventions, to be exact Climate Change, Biodiversity and Desertification. This interaction seems to continuing on the same trend of modernisation theory. The modernisation theory (Rostow, 1960), for instance, argues that development process is accomplished through imitating the present developed countries. This suggests that developmental stages[iii] adhere to the circular approach that each country had to follow. Another development theory that is relevant in this regard is the dependency theory (Prebisch, 1950) that argues that there is a core of the rich people and a periphery of poor and wealthy nations and the underdeveloped states. State theory – (also known as the Infinite Universe Theory or continuous creation) (Hoyle et al, 1948) which attempts to respond the challenges posed by the world systems theory, as it argues that the economy is not divorced from politics and that suggests that there is no need to ignore the initial stages of development of each country.

Therefore, the state theory stresses on the impacts of social relations, the strength, and the independence of the state on the historical results. Additionally, scholars such as Blomström and Hettne (1984) have shown that modernity, rationality, and scientific methods oppose traditionalism, values, norms, believes, which are the fundamental requirements of the primitive stage of Eurocentric's ideals that cannot be avoided when we deal with modernity. Therefore, that will mean the adoption of such scientific approaches by African scholars, enforce the abandonment of the Afrocentric path with its values, believes traditions, norms and linear approach towards problem solving (Welsing, 1991). This also lead to continuous exposure to the production of shallow and superficial knowledge about the African situation and further subjugates Africa to the subordinate state of the western world development.

Since, Azanian government is a 'free' country and that dictates the need to re-look at various environmental developmental approaches that it adopts in dealing with the past injustice especially against the previously disadvantaged communities. The revisit to social environmental development approach become more needed more than before in view of the fact that after 14 years of apartheid nullification, millions of previously disadvantaged people are still caught up in poverty irrespective of record economic growth that averaged five percent in the past four years (Macanda, 2008). At same time the country's name remain the one of the unchanged apartheid regime. The power of neo-liberalism's superiority has influenced with its ideological restructuring programme, where its main sources of deregulation presented as the only viable and economically rational response to internationalisation (Kraak, 2004). This seems to confirm what Ginsburg et al (1997:113), call it the elitist aspects of liberal democratic theory that find its new currency, as the alliance of reformers and moderates commits itself to a form of politics that preserve the central pillars of capitalist society. That ensures the

entrenchment of power holders – especially the bourgeoisie – maintain a veto over the pace, content and institutional form of the new democracy.

In view of this paradox to change that tends to pose various challenges towards understanding which environmental development approach that need to be sustain and for whom especially in time when the country is expected to be designing programmes that are in line with decolonising mode against the western colonisation agenda. Therefore, this type of set up leads one to start questioning the principles that the regime of the day follow. Therefore, this call for a critical look at various interventions adopted by different stakeholders, thus far they have been largely ad hoc and based on particular private sector projects, rather than part of a broader strategy for building safer environments. This manifests through planners and consultants who works on designing safer environments in Azania and Africa tends to focus on the interests of the rich. Therefore, this raises a need for greater analysis of how specific interventions in particular contexts could begin to have some impact on high levels of public security in general.

When reviewing the political framework which the country adhere to the liberalist approach towards social environmental development that tends to perpetuates a particular set of values and culture that mostly benefit the minority of people. This is revealed by the Statistics S.A. survey released in March 2008 shows that about 10 percent of the population earned more than 50 % of the income whilst about 40 percent the poorest (the majority remains the previously disadvantaged group) estimated to be less than 7%. Again, levels of poverty are higher amongst the Black population and estimated to be over 60%. Azanian education system has been 'changed' and all citizens now have access to education, but about 7.5 million African people are still literary illiterate. Although most people have access to health services, public facilities are often under-resourced and unable to meet demands. Azanian situation tends to be no exception in this genocide especially when looking at African social environment development tends to follow almost the same pattern, as conditions currently it estimated that about 30,000 children die everyday due to diseases that are relates to water-borne that claims one child every three seconds and malnutrition (ILRI, 2006). Furthermore, the post-apartheid rise in income inequality and Gini coefficient that rose from below 0.6 in 1994 to 0.72 by 2006 (Joffe, 2008).

When comes to the climatic and soil environmental change in Azania that will require one to start looking at issues such as the role and the impact played by the country towards sustainable environment in this regard. Before, one starts looking at that, it will be wise to start looking at its role towards global warming. Azania is conscious of its 1.2% contribution towards climate change that influenced the present global warming as from 1990, despite its reduction of levels of sulphur dioxide, nitric oxide and ozone to average within the accepted limits for human health and the prevention of direct ecosystem damage. However, in some instances in particular in the major urban areas, where the concentrations of sulphur dioxide, nitric oxide, ozone and smoke particles may perhaps lead to further health problems in persons who are already experiencing respiratory problems. Most drivers that are dedicated to

environmental change are energy, mining, manufacturing, transport, agriculture, settlements, tourism and recreation. Fumes from various machinery (such as industry, aeroplanes, ships, trains and road vehicles), that contributes 44% of the total national nitric oxide emissions and 45% of the total national volatile organic carbon emissions[iv] (VOC). A volatile combines with nitric oxide and carbon monoxide, in the presence of sunlight, to form photochemical smog, which contains gases that are toxic to plants and animals especially in the urban areas (http://www.environment.gov.za/soer/nsoer/general/glossary.htm#VOC).

Whilst agricultural activities contribute, methane emissions that are equals to 48% of the national total and nitrous oxide emissions estimated to 78% of the national total. The concentrations of carbon dioxide show an overall increase of approximately 0.6% per year and lower atmosphere (such as the Tropospheric) methane is also increasing slowly from 1983 to 1998, with total increase of 8.3% over the time. The minimum amount of erythema dose (MED) levels fall within the dangerous to very dangerous categories especially in the city centres such as Cape Town, Durban and Pretoria in particular January and December that show the highest levels. There has been a also decrease in ambient lead concentrations over the past few years which led to the decrease in lead concentrations in petrol to 10 g/d in 1991. The average temperature stations in Azania indicate an increase of 0.2° C during the 1990s, which is associated with global warming (http://www.environment.gov.za/soer/nsoer/general/glossary.htm#VOC).

Government has started various programmes such as the massive electrification programme aims at substituting the use of coal and wood as a means of domestic energy source, as a way of improving indoor air quality in rural areas. This has resulted in electrification of households close to 1 million since 1994, although coal and wood remain important fuel sources for reasons including customary domestic activities. Again, in 1990, Azania became a signatory to the Montreal Protocol, as the means of limiting the emissions of substances that harm the ozone layer. This has resulted in the development of policies, strategies, national action plans, and implementation plans to ensure that its obligations meet terms of these international conventions.

A prevailing trend against such seemingly heavy-handed and donor-initiatives adopts the local scale as the most effective level at which to implement natural resource management policies in the region. This invocation of locality derives from several sources. First, community-based approaches have been developed with a view toward overcoming the legacy of 'suspicion and mistrust' left in the wake of the long history of resource management failures initiated and imposed by outsiders on the continent (Biodiversity Support Program, 1993). Secondly, community-based approaches designed to capitalise on the belated recognition that local or indigenous environmental knowledge may be critical to successful management of particular ecological resources (Brush and Stabinsky, 1996). Finally, local management aims to mix a economic incentives, as described above, to further the aims of neoliberal reformers working to promote the privatization of natural resources

and liberalisation of national economies across the region (World Bank, 1995; 1996). At a theoretical level, the goal of community-based resource management is simple enough: environmental planners scale down approaches and invite more local involvement in project activities. However, several problems with this premise emerged, as fundamental political, economic and conceptual issues have come into play (Schroeder, 1999:371). Firstly, the entire livelihood systems practiced by local groups banned. For example, in case of the collection of fuel for cooking, heating, the use of pasture lands and forage resources for livestock rearing. Whilst hunting and trapping of protein sources, the gathering of materials for immediate use and sale as petty commodities in one guise or another - each of these practices also banned outright, or confined to impossibly small territories, contributing thereby to the inevitable degradation of resources within them (Schroeder, 1999:365). However, the bureaucratic and political apathy of the major donors and the self-serving accumulation strategies launched by local political and economic elites have prevented these opportunities from being fully realised (Schroeder, 1999:372)

Total African Transformation: A Consideration

This type of development poses some challenges to other development approaches including sustainable environment, as the country adopted the liberal policies that are in line with development theories of the apartheid South Africa need a revision. For change to be effective there is a need to bring about the normal expectations, such as the re-introduction of indigenous knowledge systems. I will argue that some of the expectations of the 'post liberation struggle' are self-determination in everything is denied in areas of indigenous knowledge and spirituality and methods for making judgment. There is a need for the introduction of relevant knowledge system to the community development of human resources, as the means of advancement (Goduka, 2000).

Therefore, then need arises for Azania and Africa in general to start revisiting the Asante's (1987) Afrocentric notion of the promotion of African Indigenous knowledge systems that argues for a scientific attempt for African development that is geared towards African real foundations, cultural possessions, habits, beliefs and not an imitation to the western approaches development (Hawi, 2005:6). The need to revisit the African centred traditions in almost all knowledge producing systems, there is a need to move away from the exclusive use of a Eurocentric perspective when dealing with sustainable environment and strategies. Therefore, this situation requires the intervention of all stakeholders to start addressing the true needs of African people – from dominant and marginalised cultures – and an implementation of a realistic, practicable strategy in sustainable environment development (Oliver, 1988). I argue that the failure to give due acknowledgement to the Afrocentric approach to sustainable development is Africa environment will be a clear sign of continuous refusal or subordination or distortion of African knowledge system by the western scholars and their knowledge system in general to decolonise Africa and her people(Kunnie, 2000:33).

The present practices of the in almost all development approaches are normally associated with development, the Vexliard (1968) theories such as the *autoplastic* and *alloplastic* notions. Various human services professionals have debated what is termed as the *autoplastic-alloplastic dilemma* that raise need to know the limit should the beneficiary be encouraged to adapt to a given situation, and the extent should be encouraged to change? (Henderson, 1994). Henderson argues that western helping attributes have a strong autoplastic preconception; clients (in this case the previously disadvantaged people) are encouraged to discard their traditional beliefs, values, and behaviour in order for them to fit into a dominant society's mainstream. Whilst one side, the loss of cultural identity is also personally devastating, the ability to change is a precondition for survival in the modern societies. At the same time, people need connection of values and life-style and these differing expectations mostly restrained the forces of change. On another side, Afrocentric scholars tend to be alloplastic, as they encourage new behaviour on condition that tally well with traditional ways of doing things (Henderson, 1994). This approach, like the autoplastic approach, can lead to some challenges that can emanates from danger of tradition-oriented beneficiaries becoming too restricted in their culture and fail to effectively adjust to technological and social changes (Taft, 1966). In addition, that suggests that efficient helping involves interventions in which beneficiaries are able to stop or adjust to challenges whenever they wish to do so and maintain their cultural identity (Henderson, 1994:169).

Therefore, the current transformation process that is sweeping in Azania raised the need to scrutinise all avenues of sustainable environment development and practices will be not exception in this regard. The failure to adopt a relevant approach in the interventions by various stakeholders in Azania necessitated the need for a serious scrutiny in general sense, passive versus active coping mechanisms that link to alloplastic and autoplastic orientations. In other words, that means the willingness to transform the subjective environment or to accommodate oneself to a particular situation, which is applicable passively or actively. In line with the French social psychologist – Vexliard (1968), when comparing the Eurocentric and Afrocentric approaches, show that the developmental symptoms in post Apartheid era tends to lean more towards passive autoplastic approach (Draguns, 1974). Whilst the Afrocentric approach, I argue that it will swerve towards the conjunction of active and alloplastic course, as part of decolonising Africa (Gawanas, 2008). In this regard, the issue of values, the elements of the symptomatology of the two contrasting cultural bases that are initiated by transformation of capitalism, which increased the scope of possible and practical change in the external world and make our environment the possible ground for our achievements (Draguns, 1974:122).

Concluding remarks

Continuous failure to adhere to African norms by the relevant stakeholders will be adding to what Abdullah and Low (2005) noted, as the intellectual imperialism has resulted in diverting attention from issues that should be of critical concern to black African societies. When exploring the critical theory

(Snyman, 1997: 222) that aspires "to identify the unresolved tensions in the existing social reality and thereby to cause a change of consciousness" in dealing with future challenges and devising of the lasting solution to the current outstanding problems on sustainable environment. Therefore, I argue that because of the history of capitalist 'civilisation' that offers Africa the opportunity to learn about reification from inside out for the first time, the working individuals are dispossessed and continue to be subjected under this type of development. In addition, they remain, as a saleable commodity alienated from social processes that lead to the dehumanisation that enhances self-conscious (Snyman, 1997: 222). Furthermore, a critical theory (Snyman, 1997: 223) is necessary because it is "guided by analysis of the historical process that has an interest in the future" of the sustainable environment. The need for Africa and her children to redesign its decolonising self-images and create a new science-led and culturally aware of its future is more than just a need (Roach, 1994).

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[i] I opt to use the name Azania that refers to a liberated state of this country instead of South Africa that is the flagship of apartheid era, as part of paradigm shift exercise
[ii] Sustainable development refers to a state when individual or group of people are 'meeting the needs of the present without compromising the ability of future generations to meet their own needs (http://www.environment.gov.za/soer/nsoer/general/glossary.htm#Sustainability).
[iii] 1. The traditional society; 2. the pre take-off stage; 3. take-off; 4. the road to maturity; 5. the society of mass consumption.

[iv] Carbon compounds which evaporate at everyday temperatures and measured through volume units: kilo litre: thousand metric litres or one cubic metre (m) and mega litre: million metric litres (http://www.environment.gov.za/soer/nsoer/general/glossary.htm#VOC).