SUSTAINABLE DEVELOPMENT AND THE MILLENNIUM DEVELOPMENT GOALS THE ENVIRONMENT-POVERTY NEXUS IN THE SOUTHERN AFRICAN CONTEXT

Selim Jahan*

Abstract

In 2002, at the World Summit on Sustainable Development (WSSD), one of the critical issues at the centre of intense discussions was the linkage between sustainable development and the achievement of the Millennium Development Goals (MDGs) with one crucial element in that linkage being the well-recognized environment-poverty nexus. The present paper starts by indicating the possible conceptual relationships between the two with implications for the achievement of the MDGs, but then carries it forward in the context of Southern African countries. In that contextualization, the paper highlights the structural and policy constraints in Southern Africa to sustainable development and the realization of MDGs and comes up with concrete policy options for simultaneously tackling the issue of human poverty and environmental degradation. It also revisits the implications of WSSD and the Water and sanitation, Energy, Health, Agriculture, and Biodiversity and ecosystem management (WEHAB) framework on the issue of sustainable development and the MDGs in the Southern African context.

It presents five specific conclusions. First, sustainable development reflects a broad-based concept, but MDGs, as time-bound quantitative goals, help concretising the notion in terms of operational clarity. Second, Southern African countries, with all their diversities, face some general structural and policy constraints towards the achievement of sustainable development and the MDGs. Third, policy options are available to reach a win-win situation where simultaneous achievements of environmental sustainability and human poverty reduction are possible. Fourth, MDGs and WEHAB, even though they have differences in terms of contexts and focus, can be mutually reinforcing with WEHAB providing a practical operational path towards realization of MDG aspirations. Fifth, the WSSD, with its plan for action and implementation plan, have significant implications for sustainable development and achievement of the MDGs in the Southern Africa sub-region.

^{*} Senior Adviser, Employment for Poverty Reduction, Socio-economic Development Group (SDG), Bureau for Development Policy (BDP), United Nations Development Programme (UNDP), New York. The present paper has been prepared for a MDG Forum: Sustainable Development in Southern Africa: Mobilizing Partnerships and Capacity for Achieving MDGs to be held in Johannesburg, South Africa, 2-4 July 2003. Parts of the current paper have drawn on a previous joint article done by Alvaro Umana and the present author, for which the latter is thankful to former. However, the usual personal responsibility and organizational disclaimer apply.

Introduction

In 1992, at the United Nations Conference on Environment and Development (UNCED), the major emphasis was on sustainable development. Many areas of sustainability and development were covered, but the issue of environment predominated others. As a result, the term sustainable development became, by and large, equated with environmental sustainability. In 1995, at the World Summit on Social Development, poverty eradication was highlighted as one of the major objectives. And it was thought to be the missing puzzle bringing balance to the overemphasis on environmental aspect of sustainability. At the Millennium Summit (2000), world leaders distilled a set of time-bound quantitative goals, known as Millennium Declaration Goals (MDGs), geared to significantly reducing human poverty by 2015 (Annex 1).

In 2002, at the World Summit on Sustainable Development (WSSD), one of the critical issues at the centre of intense discussions was the linkage between sustainable development and the achievement of the MDGs. One crucial element in that linkage is the widely recognized and well-established environment-poverty nexus, due to the fact that environmental sustainability is a significant aspect of sustainable development and poverty reduction is of prime importance within MDGs.

All these issues have critical significance for Southern Africa. In recent times, countries in this sub-region have made some good progress on many fronts of environmental sustainability. Zimbabwe has been quite successful in enhancing its efficiency in resource use – one kilogram of oil equivalent in 2000 produced more than \$3 (PPPUS\$) worth of GDP, compared to \$2.5 (PPPU\$) worth in 1990. The per capita carbon dioxide emissions in South Africa have declined from 8.3 metric ton in 1990 to 7.9 metric ton in 1999. Tanzania has been able to more than double the access of safe drinking to its rural population – from 28% in 1990 to 57% in 2000. Yet, environmental degradation is a fact of life in Southern Africa. The land area covered by forests has gone down from 54% to 42% within a span of ten years – from 1990 to 2000. Traditional fuel consumption, a major source for indoor pollution, still accounts for 89% of total energy use in Malawi. Annual withdrawal of fresh water in South Africa represents 30% of its water resources. In Malawi.

The present paper attempts to deal with the issue of sustainable development and the MDGs on two fronts – conceptual and contextual. On the conceptual front, it concentrates on the possible relationships between sustainable development and MDGs, but focusing more on the environment-poverty nexus. This is because that particular focus provides a framework for relating the major element of sustainable development with the goal of human poverty reduction, as reflected in MDGs. On the contextual front, the paper highlights the implications – both policy and institutional - of this framework for Southern Africa. It also relates the discussion to WSSD Plan of Action and the WEHAB (Water, Energy, Health, Agriculture and Bio-diversity) framework.

 $^{^{1}\,}$ All these data are from UNDP (2003) and World Resources Institute (2001)

Sustainable development and MDGs: conceptual issues

Sustainable development can be defined as a development path and pattern in which the choices of present generation are enlarged without restricting the choices of future generations. Thus sustainable development highlights the need for meeting the needs of the present generation, without compromising the ability of future generations to do so. Defined this way, the notion of sustainable development implies three issues:

- Enlargement of human choices at any point would depend on economic, political, social, institutional and environmental contexts. Thus sustainability encompasses more than environment.
- The concept of sustainability is a dynamic inter-generational notion
- The abstract concept of sustainable development needs to be operationalized, which requires, among other things, measurable indicators and quantifiable targets, a framework for inter-temporal cost benefit analysis.

Development becomes sustainable if it is sustained on several fronts – political, social, economic, and environmental (**box 1**). And it is the interaction of all these dimensions that makes sustainability real. Sustainability is linked to all forms of capital – natural, economic and social – and their reproduction. Natural resources and their reproduction is a key to environmental sustainability. Economic capital, e.g. labour and its reproduction is needed for economic sustainability and social capital, i.e. bondage, interaction and relationships among human beings within a society, is also a prerequisite for sustainability.

A review of the MDGs immediately confirms that human poverty is at the center stage of the MDGs. From eradicating extreme poverty and hunger to achieving universal primary education to reducing child and maternal mortality, all these goals emphasizes overcoming one particular aspect of human deprivation. The goals of gender equality or environmental sustainability are also linked to such deprivation. Thus human poverty – reflecting multidimensional impoverishment - assumes primacy in the MDGs.

Box 1: Dimensions of sustainability

- Political sustainability encompasses reproducibility of power structures and governance mechanisms; the
 evolution of institutions and the institutional framework that would carry out the tasks ensuring that the present
 generation maximizes its choices but not at the cost of opportunities for future generations.
- Social sustainability reflects social norms, values and culture, social structures and social cohesion, which are conducive to ensuring enlargement of choices of all segments of society in an equitable manner. If development is to be sustainable, it has to be owned by the entire society in terms of its philosophy, modus operandi and direction and such a ownership will facilitate the commitment to and understanding of the need for not compromising the opportunities of future generation while undertaking development for the present time.
- Economic sustainability addresses economic production and distribution as well as reproduction of the population. Economic sustainability requires building of human capabilities in an equitable manner through universal access to basic social services, equal economic opportunities, fairness in access to productive resources, sustained economic growth etc. Thus equity, sustained growth, quality of life are three major dimensions of economic sustainability.
- Environmental sustainability deals with natural resources exhaustible and renewable and ecosystem services
 and the reproducibility of global ecosystems services and ecological resources. The overuse of natural resources

and the environmental degradation at present shrink the opportunities of future generations. Environmental sustainability emphasizes the proper uses of natural resources and regeneration of the eco system so that future generations have at least exactly the same opportunities as the present ones.

Source: Jahan and Umana (2003)

Sustainable development reflects a broad-based concept, which sometimes lacks operational specificity. The MDGs, being time bound quantitative targets in many areas of sustainable development, help concretizing the notion. If the world can halve extreme poverty, adequately feed them, ensure universal access to safe water, reduce child mortality and maternal mortality by two-thirds and three-fourths respectively, can enroll all its children in school, can reverse environmental degradation and onslaught of HIV/AIDS, it will ensure sustainable development.

On the other hand, meeting the MDGs, a country will need political, socio-economic and environmental sustainability. For example, legal discrimination towards certain groups in society that precludes them from having access to safe water will make the goal of halving proportion of people without access to safe water by 2015 difficult, if not impossible. Persistent gender discrimination can also make several MDGs beyond reach of the society. Unequal access to productive resources will hold back a society from achieving the goal of halving extreme poverty. Systematic environmental degradation in any society would not allow it to reach the goal of reversing loss of environmental resources.

Sustainable development and achievements of MDGs are thus mutually reinforcing. They represent a two-way relationship – where achievement of MDGs helps achieving sustainable development and where the presence of sustainability in its various dimensions is needed for achievement of the time-bound MDGs.

Since environmental sustainability is a key dimension of sustainable development and poverty reduction is the core of the MDGs, in order to properly understand the sustainable development-MDG linkage, it is essential to grasp the environment-poverty nexus including some specific environment-poverty myths and also some of the conventional wisdom on the environment, growth and poverty nexus.

Environment-poverty nexus: a conceptual perspective

The environment-poverty nexus is a two-way relationship. Environment affects poverty situations in three distinct dimensions: by providing sources of *livelihoods* to poor people, by affecting their *health* and by influencing their *vulnerability*. On the other hand, poverty also affects environment in various ways: by forcing poor people to *degrade* environment, by encouraging countries to *go for* economic growth at the expense of environment, and by inducing societies to give *non-priorities* to environmental concerns including channeling resources to such concerns.

Environment matters a lot to poor people. Their well-being are strongly related to the environment in terms of, among other things, health, earning capacity, security, physical surroundings, energy services, and decent housing. In rural areas, poor people may be particularly concerned with their access and control over natural resources, especially in relation food security. For poor people in urban areas, access to a clean environment may be a priority. Prioritization of environmental issues may vary across different social groups. For example, poor

women, reflecting their primary role in managing the household, may regard safe water, sanitation facilities, and abundant energy services as crucial aspects of well being for poor people.

Some of the environmental degradations reflect truly global concerns, such as global warming and the depletion of the ozone layer. Others are international, like acid rain, the state of the oceans, or the condition of rivers that run through several countries. Others yet are more localized, though they may often occur worldwide, like urban air pollution, water pollution, or soil degradation. Even though poor people also feel the impacts of global environmental degradation, it is local environmental damages that affect the lives of poor people more.

The impacts of environmental degradation were unequal between the poor and the rich. Environmental damages almost always hit poor people the hardest. The overwhelming majority of those who die each year from air and water pollution are poor people. So are those most affected by desertification, and those who are expected to be the worst affected by the floods, storms and harvest failures brought about by global warming. All over the world it is poor people who generally live nearest to dirty factories, busy roads and dangerous waste dumps. The loss of biodiversity is most severe for poor rural communities. Environmental degradation, by depleting the health and natural support systems of poor people, may make them even more vulnerable.

Deconstructing some specific environment-poverty myths

Poor people are the principal creators of environmental damages: Even though poor people bear the brunt of environmental damages, the irony is that they are not the principal creators of them. It is the rich who pollute and contribute more to global warming. They are the ones who degrade the global commons, making resources scarce for poor people. In many areas, the non-poor, commercial companies, and state agencies actually cause the majority of environmental damages through land-cleaning, agro-chemical use, and water appropriation. The rich also generate more wastes and create a stress on the nature's sink. Thus poor people become victims of consumption levels and patterns of the rich.

In fact, one of the environmental challenges that stem from the growing poverty and environmental damage is that growing poverty pushes more and more people to the periphery – to the most ecologically fragile land where they become even more vulnerable. Yet there are many examples in which poor people take care of the environment and invest in improving it.

Population growth leads to environmental degradation: While initially degradation may occur as population increases, what happens next is context-specific. Rapid population growth is not incompatible with sustainable management of the environment and in some cases, as has been demonstrated in the Machakos experience in Kenya, increasing population density is required for environmental sustainability (box 2).

Box 2: The Machakos experience

Until the late 1930s, significant soil degradation and erosion – a large-scale population-induced degradation - have been observed in the district of Machakos in Kenya.. Between 1932 and 1990, the population of the district increased from 240,000 to 1.4 million. The population growth affected the situation positively in two ways. First, the concern about soil degradation led to such measures as bench terracing to conserve soil. In the 1950s more than 40,000 hectares of land were terraced and in the 1980s more than 8,500 kilometers of terraces were constructed annually. Second, increasing population density leading to land scarcity promoted investment, both in conservation and in high-yielding improvements. Integrating crop and livelihood production improved the sustainability of the farming system. Many social and institutional factors – a good policy framework, better physical infrastructure, a secure land

tenure system, indigenous technology, an improved health and education system – facilitated the agricultural change in the Machakos district. The results have been impressive. Between 1930 and 1987 the productivity of food and cash crops increased more than six-fold. Horticulture productivity grew fourfold.

The Machakos experience clearly demonstrates that even in an area vulnerable to soil degradation, a large population can be sustained through a combination of endogenous and exogenous technological change supported by a conducive policy framework and much local initiative.

Source: Montimore and Tiffen (1994)

■ The poverty-environment nexus basically stems from low incomes: Often in the discussions of the relationship between poverty and environmental damage, for the environmental behaviour of poor people, their impoverishment is identified as the sole reason.

Arguments that maintain that poor people degrade environment basically explain the poverty-environment nexus in terms of income levels only. But the issue of poverty-environment nexus is more complex. Questions of the ownership of natural resources, of access to common resources, of the strength or weakness of communities and local institutions, of the way information about poor people's entitlements and rights to resources is shared with them, of the way people cope with risk and uncertainty, of the way people use scarce time – all these are important in explaining people's environmental behaviour.

Many of the natural resources that are degraded are communal property. But rights are ill defined, often because they were originally defined in a local social and political framework, which is no longer there. Institutions for managing common property that reflect the consensus of owners and can control use are lacking. In ecologically fragile ecosystems, people tend to minimize risks, not maximize output, whether they are poor or rich. Over exploitation of sources of fuel-wood is linked more to the time available to women than to their poverty status. There is gender dimension, but not necessarily an income dimension.

Many factors shape the human behaviour toward environment, some of course related to poverty or affluence, others independent of either income or poverty.

Revisiting some conventional wisdoms in the environment-poverty nexus

■ **Downward spiral hypothesis**: The hypothesis maintains that poor people and environmental damage are often caught in a downward spiral. Past resource degradation deepens today's poverty, while today's poverty makes it very difficult to care for or restore the agricultural base, to find alternatives to deforestation to prevent desertification, to control erosion and to replenish soil nutrients. People in poverty are forced to deplete resources to survive, and this degradation of environment further impoverishes people. ²

While this can and does happen, as an overarching model, it is a rather simplistic view of a much more complex reality. Environmental degradation can sometimes be associated with poverty, but there is not necessarily a direct causal relationship. Other factors also shape human behaviour to environment. The danger of the Downward Spiral Hypothesis is that it may often lead to policies that either reduce poverty (often in the short-run) at the expense of the environment or protect the environment at the expense of poor people.

_

² Ostrom et. al. (1999)

• Environmental Kuznets Curve: The Environmental Kuznets Curve shows a relationship between air pollution and economic growth. It maintains that pollution will increase initially with economic growth but if growth continues and as society becomes more affluent, pollution will be reduced. Thus measuring economic growth in terms of per capita income in an economy, it establishes an inverted Ushaped curve implying increases in pollution initially, but a decline in it as per capita income continues to grow.

The Environmental Kuznets Curve has been severely criticized on conceptual, statistical as well as policy grounds.³ Conceptually, an inverted U-shaped relation may exist between a few selected pollutants and income, but not necessarily at an aggregative level. In the area of statistics, there are the problems with aggregation, with identification of appropriate variables, and from weakness of the data. Evidence indicates that there is nothing inevitable about the link between economic growth and environmental degradation. In fact, policies and institutions can significantly influence the Environmental Kuznets Curve. The removal of perverse subsidies, internalization of externalities and identification of property rights can change the relationship between income levels and levels of environmental degradation.

Beckerman Hypothesis: The hypothesis maintains that as growth provides accumulated
assets that can be used to ameliorate environmental degradation, it makes sense to degrade
now and pay later to put things right.

There are three major problems with this hypothesis.⁴ The first one is that economic growth can generate accumulated assets, but there is no guarantee that a part of such resources would be used to ameliorate environmental degradation. Such resources, as experiences have shown, might have been used for other purposes, sometimes for unproductive ones. Second, like the Environmental Kuznets Curve, it also seems to undermine the need for conscious policy interventions. It indirectly implies that growth would provide accumulated assets that would take care of environmental degradation. Third, it takes a simplistic approach towards intergenerational equity issue. It basically says that there will be physical degradation at present, but that monetary compensations will be made in future, without answering how they would provide the same sort of opportunities as enjoyed by the present generation or how they would be translated into physical natural resources or how the amount and the nature of future compensations are agreed upon.

Porter Hypothesis: Porter argues that high levels of environmental protection are compatible with high levels of economic growth and may encourage innovation that supports growth. The hypothesis makes two fundamental points. First, environmental protection justified not only for pure environmental reasons, but because such protection makes economic sense as well. Environmental protection by ensuring minimizing waste of resources, by enhancing efficiency in resource use and by minimizing adverse environmental externalities of the production process, may contribute positively to economic growth. Second, seeing the economic value of environmental protection, initiatives may be undertaken for innovations in technology, input-mix, and management again to increase resource-use efficiency and also to minimize the resource waste and the adverse environmental impacts of production. All these enhance economic growth further.⁵

³ Banuri (1998)

⁴ Munasinghe and Cruz (1995)

⁵ OECD (2001)

But the hypothesis can lead to an extreme situation whereby environmental standards are imposed on trade. Using trade restrictions in the name of environmental standards is protectionism. For domestic environmental problems, such restrictions are inefficient and for trans-boundary problems, they are both inefficient and inequitable.

Both for poverty reduction and environmental sustainability, economic growth are critical. But such growth must be pro-poor and resource saving in order to contribute to those two objectives. Efficiency in resource use are crucial on two fronts: first, it releases resources which can be devoted to poverty reduction and second, it reduces environmental degradation.

Delinking economic growth and natural resource use⁶

If it becomes possible to use less and less natural resource in the production process, it would mean *dematerialization* of the production process and would imply *delinking* natural resources from economic growth. Studies have shown that resources can be used at least four times as efficiently as currently used. Looking at the total impact of human interference with the biosphere, it has been concluded that material turnovers should be reduced by at least 50% on a global scale. Since per capita resource use is 5 times more in industrial countries than in developing countries, it has been asserted that sustainable levels of material flows will not be reached unless the material intensity in industrial countries is reduced by a factor of ten.

But the critical issue with regard to delinking is not to establish its advantages, but to face the practical question as to whether such a delinking is possible. There is historical evidence that it is possible in many areas. For example, between 1791 and 1830, the volume of coal used to produce one ton of iron was reduced by over 50%. It has been shown that industrial countries could continue their present growth rates and yet reduce their energy use by a third.

Technology has played a major role in the delinking process. Increases in productivity and efficient use of resources because of technological development has made it possible to get the same amount of output with lesser amounts of inputs. In a survey of four major materials such as cement, steel, copper, timber covering 11 countries (8 being industrial), the elasticity of material use to economic growth has been found to be zero from 1970-85, implying a de-linking phenomenon. Per capita use rates of steel, timber, and copper have generally stabilized or even declined in industrial countries.

Recycling also had an impact on the dematerialisation process. It reduces both the demand for primary resources and many of the environmental impacts associated with waste disposal. Every ton of iron recycled not only replaces a ton that would have been mined, but also avoids several tons of hidden material flows associated with iron mining and processing. Recycling can also save energy: recycled aluminium requires only 5% of the energy needed to refine and smelt new aluminium from bauxite. Today in industrial countries, the recycling rates for paper is about 45% and that for glass is 50%, compared to 33% and 26% respectively in the mid-1980s. Recycling is yet to be of significance in developing countries. But there are some instances where private action in developing countries, particularly by women, has been quite successful. On the one hand, it has become a flourishing business, on the other it has contributed to the solution of waste disposal. Unfortunately, recycling is not always environmentally benign, particularly where hazardous recyclable wastes are involved.

_

⁶ All data used in this section comes from Weizsacker et.al. (1997)

But in recent times, some concerns have been raised on various aspects of de-linking. First, it has been argued that evidence of declining material intensities is restricted to certain specific materials. The issue is whether it can be generalized as a reflection of an aggregative picture in the production function. Second, in recent years, industrial countries are taking a large part of their production activities to developing countries. Thus the material intensity in industrial countries might have declined, but the same may not be true in developing countries. The issue then is whether overall de-linking is taking place. Third, some of the recent studies have found evidence of re-linking even in industrial countries. These studies argue that the energy shocks of the 1970s and the heightened environmental awareness led to policy interventions that increased resource efficiency across a wide range. However, with the utilization of the unexploited opportunities, the economies returned to their long-term growth trajectory in which resource use rises with income.

In spite of all these limitations, de-linking of economic growth and natural resource use has three important benefits :

- De-linking of economic growth and natural resource would mean dematerialisation of both production and consumption. Economic activities would be undertaken at the same level but with lesser amount of resources. It would release resources, which could be used in alternative areas of economic growth and human development. The new technology could also make industrialization in developing countries more affordable.
- If production were de-linked from natural resource use in terms of using lesser and lesser amount of natural resources per unit of GDP, it would also imply lesser and lesser environmental degradation. One corollary implication of de-linking is that if economic growth is de-linked from natural resource use, every country may be able to maintain its *environmental space* defined as the amount of renewable and non-renewable resources, which a country can afford without depriving future generations of their rights to the same use of natural resources.
- The de-linking issue has also led to the idea of a knowledge-based society, in which the technology will be more human resource dependent. Such a society could arrange both its production process and the consumption pattern less intensive of natural resources.

Implications towards achievement of the MDGs

The unequal access of poor people to natural resources and the larger adverse impacts of environmental damages on poor people's lives have some direct consequences for some of the MDGs. There are also indirect implications of deconstruction of the myths with regard to the environment-poverty linkages. Benefits associated with efficiency in resource use and the advantages of delinking economic growth and resource use have significance for the achievement of the MDGs as well.

Direct implications : unequal access and asymmetrical impacts

The direct consequences of unequal access of poor people as well as adverse impacts of environmental damages on poor people will be felt across the MDGs.

➤ Unequal access to natural resources and asymmetrical burden of environmental degradation: Not only have poor people unequal access to natural resources, they suffer more because of environmental degradation. The growing soil degradation and erosion, desertification, deforestation are affecting poor people more in terms of resources and

livelihood, leading to their further impoverishment and vulnerability. This will have an adverse effect on the goal of *halving extreme poverty by 2015* and several other MDGs.

Furthermore, the loss of biodiversity and biopiracy are robbing indigenous people of their sources of resources, livelihood, and medicine. It then becomes more difficult for them to get out of the poverty trap. In societies with a significant population of indigenous people, this will slow down the process of reaching the MDGs.

➤ Inaccessibility to safe water, water contamination and wastes: Poor people bear the major brunt of inaccessibility to safe water, water contamination, water-borne and water-related diseases. This has an adverse impact on a number of MDGs. For example, the greater inaccessibility of poor people to safe water will make the goal of halving by 2015 the proportion of poor people without access to safe water difficult. The greater inaccessibility of poor people to safe water, their larger exposure to water contamination, higher malnutrition and morbidity will have an adverse impact on school enrolment. Inadequate sanitation at school is a powerful disincentive for attending school, especially for girls.

And since child mortality is higher among poorer households, a greater incidence of water-borne and water-related diseases will further deteriorate it among those households. Increasing lead poisoning among poorer children, particularly in urban areas, may also have an adverse impact on child mortality in many parts of the world. All these will make it difficult to achieve the goal of **educing child mortality by two-thirds by 2015.

➤ Indoor pollution: Indoor pollution is a major problem for poorer households, which are at the bottom of the energy ladder. Every year, four-fifths of the 1.8 million deaths from indoor pollution in rural areas are women – a lot of them are pregnant women or have small children. As child mortality is significantly higher among poorer families, exposure to indoor pollution increases the likelihood of not achieving the goal of reducing by 2015 child mortality rate by two-thirds, as acute respiratory diseases will claim many lives.

Indirect implications

The deconstruction of the myth that poor people are not the principal creator of environmental damages calls for revisiting some of the policy issues, particularly policies with biases towards poor people. Such policies encompass pricing of natural resources, taxes and subsidies. Policy makers must reorient these policies to benefit poor people. A reorientation needs looking afresh at the ownership of the common resources, the legal framework, local management of common properties, and the issue of time use by women. They must change policies and institutions to ensure access of poor people to resources. All these can be expected to have positive impact on the likelihood of meeting the MDGs.

The limitations of the *Environmental Kuznets Curve* suggest that the issue of environmental degradation cannot be left to growth alone, justifying a passive attitude to policy needs. Rather, pro-active policy actions will be required for environmental protection and regeneration. The same may happen through the revisit of *Beckerman Hypothesis*. These will induce pursuing policies for environmental protection and regeneration, a pre-requisite to achieve the goal of *environmental sustainability*. A reevaluation of Porter Hypothesis may encourage policy makers to take a balanced approach towards environmental policies.

The MDGs will be well served by improving the efficiency of natural resource use in production of goods and services as well their consumption, by reducing pollution and waste, and by conserving natural resources. Delinking ensures more natural resource conservation, lesser environmental degradation, resources for alternative uses, and emergence of a knowledge-based society. All these are contributing factors to many of the MDGs.

With this analytical framework in place, let us now review the Southern African scenario in terms of sustainable development and the achievement of MDGs, particularly the environment poverty nexus. The review will primarily focus on the major overall constraints – both structural and policy-wise – to sustainable development and the achievement of MDGs, the human poverty scenario that Southern Africa faces, and the critical environmental degradation challenges of the subregion.

Sustainable development and the achievements of MDGs: the Southern Africa Context

The path, either to sustainable development or towards achieving the MDGs, is not a smooth one. In today's world there are several structural trends that act as major constraints to both. In the Southern African case, some of these constraints are:⁷

■ **High inequality**: Inequality takes many forms – in terms of access to basic social services or productive resources, income, human development outcomes and also in terms of regional, rural-urban differences, between borders and between socio-economic groups. There are certainly overlaps and mutual reinforcement of various dimensions. For example, gender disparity may be exemplified by rural-urban disparity and also by ethnicity. Thus a rural woman belonging to a minority group may face the highest degree of disparity – first because of her sex, second because of her location and third because of her ethnic identity.

Whatever lens is used to look at inequality, from the present trend it can be concluded that even though progress has been made in a number of areas, disparities persist in many aspects in Southern African region. In terms of income, in the mid-1990s, the poorest 20% of the Namibians used to get 1.4% of the country's income while the richest 20% used to get more than 78%. Access to cleaner and efficient energy services is a critical element for overcoming poverty and also for ensuring environmental sustainability. In Mozambique and Tanzania, traditional fuel accounts for more than 90% of the energy use. Most of people in these countries are at the bottom of the energy ladder, burning dung, wood and crop residues for their cooking and heating, which are major sources for indoor pollution. Inequality in access to social services, productive resources and energy services result in unequal outcomes. In Malawi, only 44% of rural population has access to safe water, compared to 95% of their urban counterparts.

In Southern Africa, such widespread disparity in different planes has implications both for achievement of MDGs as well as for sustainable development. If there are pockets of more deprivations, unless efforts and strategies focus more on those pockets, it will be difficult to achieve the overall goals within the stipulated time periods. It is therefore important to identify such pockets and to channel focused efforts towards them. Similarly, the existence and perpetuation of inequalities and disparities in various dimensions are the root cause in most circumstances for frustration, discontentment, mistrust and conflict – all major constraints to sustainability. Policies are thus needed upfront to deal with such disparities so that conflicts, wars, terrorism and failed states are avoided down the road.

_

 $^{^{7}}$ Most of the data reflected in the constraints are from UNDP (2003) and World Resources Institute (2001)

■ Gender disparity: Any development that bypasses half of the humanity cannot be sustainable. Even though in Southern Africa, progress for women is manifested on several fronts, the discrimination against women remains universal. In a number of countries, female literacy and enrolments are not only low, but they also lag male enrolment. In Malawi, adult literacy rate among females at 48% is less than two-thirds of that of male literacy rate. The net secondary enrolment ratio for girls in Mozambique is only 8% and is only two-thirds that for boys. Women also share unequal benefits in Southern Africa in economic spheres as well. The female economic activity rate in Zambia at 68% is only three-fourths of that for males and the estimated earned income for women at \$554 (PPPUS\$) in that country is almost half of that of men at \$1,004 (PPPUS\$). Even in South Africa, women constitute less that 30% of the parliament seats.

Women are the major victims of domestic violence, rape, and cross-border trafficking for prostitution. In 1998, there were more than 1,300 reported rapes in Botswana and more than 5,000 reported assaults leading to bodily harm to women. Such systematic violence against women is a major constraint to any kind of sustainability.

• Social exclusion: Even though in recent years, people's participation has increased on many fronts in Southern Africa and the value of people's power has been demonstrated (e.g. movements in the area of HIV/AIDS), a process of exclusion persists in many parts of the world. Social exclusion acts at several levels. At one level, ethnic minorities, races or religious faiths, tribal and indigenous people, are excluded from the mainstream activities and benefits of many societies. For example, in the mid-1990s, in South Africa, unemployment rate among African males was 29%, four time that among white males. At another level, women and children, people who are elderly or disabled or people with different sexual orientations are also discriminated against. Yet at the third level, people who are economically depressed also cannot take part in the process that affect their lives. All these are often reflected in unequal human outcomes.

Ethnic minorities and races in many societies are not only are excluded from the mainstream, rather they become subjected to something more – genocide. Social and political forces frequently work against women, ethnic minorities, and people with disability. Some of the exclusions are also for economic forces. For example, opening up of markets can erode the security and social safety nets, thereby excluding the elderly, children and others from the social protection system. During financial crises, poor people often become excluded from the system. And the events in many Southern African countries bear testimony to these facts.

Social exclusion adversely affects sustainable development in three distinct ways. First, it denies the potentials of groups of people to significantly contribute to the development process. Second, it excludes people from participating in the decisions that affect their lives. Third, it raises the fear of human insecurity among affected groups. All these denials and exclusions also make the achievement of MDGs quite difficult.

■ HIV/AIDS: HIV/AIDS has caused a havoc in Southern Africa. In Botswana, Lesotho, Swaziland and Zimbabwe, 1 in every 3 adults is infected with HIV/AIDS, 1 in 5 in Namibia, South Africa and Zambia. Countries like Malawi, Mozambique and Tanzania have more than 1 million infected people. Zambia and Zimbabwe, each has more than more than 1 million AIDS orphans. HIV/AIDS is not a health problem - it is a human development issue. During

_

⁸ Selim (2003)

the last thirty, years, Zimbabwe has lost 23 years in life expectancy and countries like Botswana, Malawi and Zambia have lost more than 15 years. In 1998, Zambia alone has lost 1,300 teachers – two-thirds of those trained each year. Because of HIV/AIDS, the Human Development Index (HDI) has dropped during the 1990s in Botswana, Democratic Republic of Congo, Lesotho, South Africa, Swaziland, Tanzania, Zambia and Zimbabwe.

In Southern Africa, MDGs cannot be achieved and development cannot be sustainable unless the issue of HIV/AIDS is tackled urgently. Some progress in addressing the epidemic has been made in countries like Zambia (e.g. the prevalence rate among young women has fallen by 4 percentage points between 1996-99), but there are serious issues such as access to drugs, which need to be dealt with if any permanent dent is to be made on this front.

■ **Debt burden and conflicts**: Apart from the issues mentioned above, some critical issues primarily emerging in the 1990s, such as debt burden, conflicts and terrorism, are posing as additional constraints to sustainable development as well as achievement of MDGs in Southern Africa.

In the area of debt relief, even though Malawi and Zambia have reached the decision point and Mozambique and Tanzania have reached the completion point, high indebtedness of many Southern African countries is a major challenge to sustainable development and to the realization of MDGs. Total debt service (as percentage of GDP) for Angola is about 20% and that for Lesotho nearly 9% and in both cases, public expenditures on health and education are less than 3%.

Conflicts are frequent in many countries of Southern Africa and they produce severe adverse human outcomes, which pose to be major constraints both to sustainable development and also to the achievement of MDGs. Because of war and conflicts, by 2001, Angola has produced more than 472,000 refugees and more than 200,000 internally displaced people. The Democratic Republic of Congo has produced more than 392,000 refugees. Displaced from their land, deprived of their livelihoods, these people face serious consequences.

These overall structural constraints reflect challenges to various dimensions of sustainability in Southern Africa sub-region. For example, high inequality is a major challenge to economic and social sustainability, and social exclusion to political and social sustainability. Furthermore, these constraints do not operate in isolation; rather they reinforce each other. For example, gender disparity and social exclusion are highly correlated, and conflicts and terrorism may reinforce each other. The inter-actions of these constraints add more to various dimensions of unsustainbility and the constraints themselves are reinforced by the underlying structures and dynamics of these dimensions.

The human poverty scenario in Southern Africa

Human poverty is not only about lack of income, but it is also about deprivations in other areas of human lives, such as health and nutrition, knowledge, access to basic social services, participation, security etc. **Table 1** summarizes the human poverty situation in terms of some selected indicators in some countries in the Southern African sub-region. The table is, of course, not comprehensive - some of the issues like HIV/AIDS have not been included in it, as the issue has already been discussed. And some indicators may rightly raise some questions, e.g. measuring poverty by \$1 a day. In many countries, the incidence of poverty, measured in terms of national poverty lines, is dramatically different from the one measured in terms \$1 a day. In Tanzania, for example, the incidence of poverty, measured in terms of \$1 a day is only20%, as

opposed to 42%, measured in terms of national poverty lines. Yet \$1 a day yardstick has been used for comparative uniformity. In spite of all these limitations, table 1 brings out some insightful conclusions:

- In general, Southern African countries, even in the context of the developing world, have to achieve more in some areas, e.g. maternal mortality and undernourishment. In most of the Southern African countries, the maternal mortality ratio is well above the developing world average of 463 per 100,000 live births. Similarly, while the developing world average for the proportion of the undernourished people is 18%, in most of the Southern African countries, it is much more than that.
- Within the sub-region itself, the degree of human poverty varies across countries. Thus Mauritius is way ahead in combating poverty compared to other countries. In fact, South Africa also has made quite good overall achievements. in terms of human development, it represents a league of its own among the Southern African countries.

Some countries have made good achievements in some areas, but have yet to make a dent on others. For example, Zimbabwe has been quite successful in dealing with adult illiteracy or access to safe water, but it still has a serious problem with regard to maternal mortality. Swaziland has been able to reduce significantly its proportion of undernourished people, but its under-5 mortality rate is still quite high.

But the most important observation that can be made about table 1 is that it basically reflects the overall average situation in the country. In each country, there are signification variations in outcomes in terms of regions rural-urban divide, ethnicity and race, gender, and socio-economic groups. Only a disaggregation of average data on these planes can provide a true picture of human poverty in any society.

Table 1: Human poverty in selected countries of Southern Africa

Country	People living on less than \$1 a day (%)	Undernourished people (%)	Adult illiteracy rate (%)	People without access to safe water (%)	Under-5 mortality rate (per 1,000 live births)	Maternal mortality ratio (per 100,000 live births
	1990s	2000	2001	2000	2001	1985-2001
Botswana	24	25	22	5	110	330
Dem. Rep, of Congo		73	38	55	205	950
Lesotho	43	26	16	22	132	
Malawi	42	33	39	43	183	1,100
Mauritius	**	5	15	0	19	21
Mozambique	38	55	55	43	197	1,100
Namibia	35	9	18	23	67	270
South Africa	<2		14	14	71	
Swaziland		12	20		149	230

Tanzania	20	47	24	32	165	530
Zambia	64	50	21	36	202	650
Zimbabwe	36	38	11	17	123	700

Source: UNDP (2003)

Environmental degradation in Southern Africa

In the Southern African context, even through environmental degradation takes different forms in different countries, yet given the uniformity of these countries in physical conditions and socioeconomic situations, some of the elements are identical across countries. Some of the major common environmental challenges in Southern Africa are:

Land degradation and desertification: Land degradation is a major problem in many parts of Southern Africa, causing serious damage to food security, economic growth and human development. It is also marginalizing the rural economy putting a serious pressure to the *push effect* for rural-urban migration. Land degradation also affects income received from livestock, and the time and effort needed to gather fuel wood and fencing. In Namibia alone, the costs of land degradation to communal farmers in terms of lost output and increased expenditure has been estimated at N\$100 million a year. Along with land degradation, desertification is also a major problem in many Southern African economies. Again, Namibia is a classic example. Desertification is often worsened with salinity, poor planning and management of water plan development, soil erosion, loss of vegetation, over grazing etc.

The issue of land degradation is closely linked to the issue of land distribution and tenure. Currently, control over access to resources such as land, water and grazing is blurred between traditional leadership and representatives of national and sub-national governments. And the ownership and the access of poor people to all these resources, which used to be common properties, are denied. As a result, poor people are forced to degrade land and other environmental entities. This is also evident in Zimbabwe as well. Issues related to land distribution and tenure in that country not only have social and economic impacts, but they also have effects on the environmental sustainability. In many cases, land degradation is accelerated by perverse subsidy structure for commercial farmers.

Deforestation: With population pressure and the need as well as profitability of alternative use, such as cropland, South African countries are losing forests quite rapidly. In a span of five year, between 1990-95, Zambia and Zimbabwe each has lost more than 1,000 hectares of natural forests. New plantations have actually gone down in Lesotho, Malawi and Zambia during the same period.

With the loss of forests, there has been loss of biodiversity as well. Biodiversity in many Southern African countries has been lost due to disruption of eco-systems, as a result of land conversion, use of pesticides and development of infrastructure. Pesticide use in Zimbabwe is as high as 550 kilogram per hectare of farmland.

 Water scarcity: In many Southern African countries, water is now termed as liquid gold because of its scarcity. Namibia is facing a serious water scarcity problem. Groundwater

⁹ Quan, Barton and Conroy (1994).

supplies in that country are fully exploited or overexploited. South Africa's annual withdrawal of fresh water accounts for 30% of its water resources.

Water scarcity has its roots in many human activities: irrigation for agriculture, water consumption by livestock, overexploitation and sometimes pollution of ground water. The scarcity is sometimes is the outcome of poor planning and water management, sometimes of adverse pricing policies. For example, during the 1990s, Windhoek, the capital of Namibia, paid only half of the total costs of its water supply, about N\$1.2 per cubic meter, while the projected cost was about N\$7 per cubic meter.

- Reduced biomass production: Biomass is critical to help the poor households to meet their energy source. In many Southern African countries, biomass production is going down because of a hostile element of an arid climate (e.g. Namibia) as well as because of various social and economic constraints. In some cases, there has been a substitution from biomass to fuel wood, but that has worsened the deforestation problem in the country.
- Mining: Mines also have adverse environmental impacts. Natural habitats are destroyed at mine sites and waste disposal sites. Emissions and discharges from also have negative impacts on human health and livelihoods. Mining also changes water tables and land form. In Botswana, Namibia and South Africa, mining has resulted in serious environmental degradation.

Because of the nature of the environmental degradation, it is poor people in general who bear the brunt of these impacts, but with the poorest bearing the hardest burden. Impoverishment pushes them to the most ecologically fragile lands; they are at the bottom of the energy ladder, and because they are nearest to the toxic dumps. Women also bear a disproportionate burden. The effect of biodiversity loss is the most severe for indigenous people as they depend more on biodiversity for their livelihoods, energy, and medicine. **Box 3** provides some quantitative estimates of human impacts of environmental degradation in the Southern African sub-region.

Box 3: Impacts of environmental degradation in the Southern African sub-region

- More than half of the population, mostly poor people, in Angola and Mozambique and more than 40% in Malawi
 and Mozambique still lack access to safe drinking water. This leads to water-related diseases, such as diarrhoea
 and cholera
- In countries like Angola, Mozambique and Zimbabwe, even in urban areas more than 30% people, majority of whom are poor, do not have access to basic sanitation
- The incidence of such vector-borne diseases as malaria is more than 25,000 per 100,000 people in Malawi and Zambia and again it is poor people who are the victims.
- In countries like Democratic Republic of Congo, Malawi, Mozambique and Tanzania, more than four-fifths of energy use comes from traditional fuel and it is poor people who have to depend on it. They also become the victims of indoor pollution with disproportionate incidence on women and girls.

Source : UNDP (2003) and World Resources Institute (2001)

In Southern Africa, some countries have undertaken successful initiatives to address the issue of both environmental sustainability and human poverty. The private-public partnerships for water services in South Africa and CAMFIRE Project in Zimbabwe are concrete examples of such success (**box 4**). Such initiatives in many cases have been at the micro level, without influencing the macro framework, In fact, in addition to the structural constraints and the setbacks created by both existence

and progression of human poverty and environmental degradation, there are also policy and institutional constraints that may hamper the environmental sustainability as well as the achievement of MDGs in Southern Africa.

Box 4: Addressing environment and poverty: the South African and Zimbabwean initiatives

In 1994, South Africa's first post-apartheid government produced a policy paper on Community Water Supply and Sanitation, in 1997 it passed the Water Services Act, and in 1998 it passed the National Water Act. South Africa's legislation provides and enabling framework for local action through the decentralization of powers, rights and responsibilities to the local level, as well as guidelines to help promote social equity and environmental sustainability. This flexibility at the local level has led to innovation and experimentation with public-private partnerships to develop water systems for poor people. An evaluation of the system in found that this approach has provided 7 million people with water, completed 205 water projects and created 310,000 jobs.

Community Areas Management Programme for Indigenous Resources (CAMFIRE) in Zimbabwe seeks to involve rural communities in conservation and development efforts by returning the stewardship of their natural resources to them and by harmonizing the needs of rural people with those of ecosystems. During drought years, money tends to be distributed mainly as household incomes. In more abundant years, funds are directed towards community development projects such as building roads and clinics, installing grinding mills and drilling wells.

Source: DFID, EC, UNDP and World bank (2002) and OECD (2001)

Policy options to address environment-poverty issues: the Southern African context

In terms of policy framework, macroeconomic strategies in most of the Southern African countries lack the pro-poor orientation. As a result, access of poor people to natural and productive resources as well as to basic social services is still limited. Economic growth that is being generated not only benefits the rich people more, but it does not take into account the issue of environmental sustainability. The pursuance of economic growth has often been supported by a macroeconomic framework that provided subsidies and tax breaks to entities, who are interested in higher growth, and not necessarily in the quality of growth. There is often an absence of propoor fiscal framework and the price structure for natural resources are often biased toward encouraging depleting such resources quickly and aggressively. Absence of effective monitoring system with regard to policies and strategies has also been a serious problem.

The policy constraints are not only the outcomes of choices made within countries, but sometimes they are the results of global and developed country policy choices. Trade policies of the North on many occasions are not supportive of environmental reality and sustainability of Southern African countries. The issue of environmental standards has often been unduly brought in trade policies as an instrument for non-tariff barrier for protectionism. Foreign direct investment (FDI) has often bypassed the issue of environmental sustainability in these countries and sometimes this could be done because of relaxed domestic policies to attract FDI. The inadequacy of debt relief measures has also contributed a lot towards resource mobilization for poverty reduction and environmental sustainability.

Absence of proper institutions and good governance has also been a major constraint in Southern Africa to deal with issues of sustainable development and poverty reduction. The centralized nature of governance in many countries, the absence of a vibrant civil society, wide-spread corruption have made it difficult to formulate and implement necessary policy strategies in areas of poverty-environment nexus.

Policy options in Southern Africa with regard to dealing with both environment and poverty simultaneously to ensure sustainable development and the achievement of the MDGs may focus on the following actions:

Integrate poverty-environment issues

- ➤ Integrate poverty-environment issues into national development frameworks
- Ensure the inclusion of the issue in Poverty Reduction Strategy papers (PRSPs)
- > Increase the use of environmental valuation
- ➤ Address gender dimensions of poverty-environment issues
- > Integrate poverty-environment monitoring and assessment in national frameworks and PRSPs

Enhance the assets of poor people

- > Strengthen the resource rights of poor people
- Ensure their access to productive resources and basic social services
- > Reduce the environmental vulnerability of poor people

Improve the quality of growth

- ➤ Adopt pro-poor macroeconomic policies
- Expand access to environmentally sound and locally appropriate technology
- > Implement pro-poor environmental fiscal reform
- Encourage private sector involvement in pro-poor environmental management

Improve governance

- > Strengthen decentralization for environmental management
- > Enhance poor people's capacity to manage the environment
- Empower civil society, in particular poor and marginalized groups
- > Strengthen anti-corruption efforts to protect poor people and the environment Reduce environment-related conflict

Influence international and developed countries' policies

- > Influence international and developed countries trade policies
- ➤ Make FDI more pro-poor and pro-environment
- > Enhance the contribution of multilateral environmental agreements to poverty reduction
- > Improve the effectiveness of development cooperation and debt relief.

MDGs and the WSSD 2002: implications for action

The MDGs represent the global commitment to reduce human poverty by 2015. The commitment, however, is not only to ensure a better world for the present generation, but also to free future generations from the threat of living on a planet irredeemably spoilt by human activities. Taking this commitment as its starting point, the WSSD held in Johannesburg last year focused on the relationship between human society and natural environment. Building on the World Summit on Sustainable Development in Rio in 1992 and the World Summit on Social Development in

Copenhagen in 1994, the Johannesburg Summit aimed to find practical ways for humanity to respond to both these challenges – to better the lives of human beings, while protecting the environment. The idea was to put the humanity on a practical path that reduces poverty while protecting environment, a path that works for all people, rich and poor, today and tomorrow.

Taking the MDGs as the overarching framework, the Summit identified five areas where practical actions can be taken for results, which are concrete and achievable. The five areas are: water and sanitation, health, agriculture, and biodiversity and ecosystem management – in short, WEHAB (box 5). These five areas make up an ambitious but achievable agenda, they reflect concerns in which progress is possible with the resources and technologies at disposal today, and they represent areas in which progress would offer all human beings a chance to achieving prosperity that will not only last their own lifetime, but can be enjoyed by their children and grandchildren too. There were also agreements on several cross-cutting issues, including opening up markets to assist development, actively promoting corporate responsibility and accountability, and pledging to develop and improve on natural disaster preparedness and response.

In fact, MDGs and WEHAB are mutually reinforcing - action in various areas of WEHAB would help achievement goals included in MDGs. For example, actions in biodiversity or agriculture would help achieving the goals of poverty reduction and hunger. Or actions in energy areas would contribute to the target of environmental sustainability. There are, however, some distinct differences between MDGs and WEHAB:

- While water and health are common areas in both MDGs and WEHAB, the areas of focus are quite different, as are reflected in annex 1 and box 5. In fact, in WEHAB, there is a new goal on sanitation.
- WEHAB includes areas like energy, agriculture and biodiversity, which do not have any counterparts in MDGs.
- Most of the MDGs can be termed as human development outcomes, where as in WEHAB, issues included in energy, agriculture or biodiversity can be termed as inputs to human development outcomes
- The WEHAB goals attempt to bring in various concerns together under each area. For example, agriculture integrates food security with desertification, and health integrates issues of chemical use and ozone depletion.
- The WEHAB is more practical action-oriented while MDGs represent a long-terms aspiration framework.

Box 5 : The WEHAB commitments

- Water and sanitation: To halve by 2015 the proportion of people without access to sanitation
- Energy: To increase access of modern energy services, energy efficiency and the use of renewable energy: to phase
 out subsidies, where appropriate, and to ensure access to energy for at least 35% of the African population within 20
 years as set by the New Partnership for African Development (NEPAD)
- *Health*: To ensure by 2020 that chemical use and production would not harm human health and the environment; to improve by 2010 developing countries access to environmentally sound alternatives to ozone depleting chemicals.

- Agriculture: To develop by 2005 made in Africa food security strategies, and for the Global Environmental Facility (GEF) to consider inclusion of the Convention to Combat Desertification to attract funding
- Biodiversity and ecosystem management: To reduce biodiversity loss by 2010; to undertake initiatives by 2004 to
 implement the Global Programme for Action for the Protection of the Marine Environment from Land based Source
 of Pollution.

Source: Chetty (2000)

Given the various poverty and environmental challenges, as described earlier, for Southern Africa, the relevance of WEHAB in the Southern African context can hardly be overemphasized. With regard to sanitation, more than 40% of urban people in Democratic Republic of Congo and more than 30% urban people in Angola, Mozambique and Zimbabwe do not have access even to basic sanitation. Major parts of fuel consumption (more than even 90% in countries like Malawi, Mozambique, Democratic Republic of Congo, and Tanzania) come from traditional sources. Energy subsidies in a number of countries are not only high, but also favour the rich. Both fertilizer and pesticide use are high in some countries - the fertilizer use in South Africa and Zimbabwe is more than 50 kg. per hectare of cropland and the pesticide use in Zambia and Zimbabwe is more than 500 kg. per hectare of crop land. More than 50% of the people are undernourished in Democratic Republic of Congo, Mozambique, Tanzania and Zambia. All these indicate the crucial importance of WEHAB in the context of Southern Africa.

In the context of Southern Africa, the MDGs provide an overall framework for the achievement of the WEHAB commitments, the WSSD plan of action as well as its implementation plan. The whole issue can be approached through the following *seven* strategies:

- Using the framework developed earlier and the linkages suggested, assess the implications of the environment-poverty nexus on MDGs in the context of Southern Africa. Bring in the WEHAB commitments to assess the synergies between WEHAB and MDGs, again in terms of Southern Africa. Integrate the major element with the NEPAD process, the commitment of African leaders to African people.
- Review the set of actions suggested in the WSSD Plan of Action as well as the plan for implementing it. Arrange for broad-based debates and dialogues on them with different stakeholders governments, private sector, civil society and external development partners to identify the relevant ones for Southern Africa. Explore ways to integrate them in National Strategies, PRSPs, and National Environment Action Plan.
- Arrange for collection of new data for dealing with indicators related to the commitments made in the WEHAB – commitments which were not in the MDGs. Link these indicators with those used for MDG monitoring.
- Diasggregate human development and environmental sustainability data in terms of regions, gender, ethnicity, race, and rural-urban divide. Use these data not only for a more clear situation analysis, but also for formulating strategies, particularly in terms of targeted interventions.
- Prepare a benchmark survey and data set from the beginning. Formulate a monitoring plan.

 $^{^{10}}$ UNDP (2003) and WRI (2001)

- Build institutions for implementation of both the action plan as well as for monitoring exercise.
 Particular emphasis should be given to the capacity development of policy-formulation and implementation entities, statistical offices, and monitoring and evaluation units.
- Coordinate the activities of various actors for avoiding duplication, building on synergies from varied experiences and expertise, ensuring efficiency, transparency and accountability.

Conclusion

As human beings, we cannot be neutral, or at least have no right to be, when other human beings are suffering. Each of us ... must do what he or she can help those in need, even though it would be much safer and more comfortable to do nothing

- Kofi Annan UN Secretary General

The MDGs, which reflect a global commitment, provides humanity with a unique chance to deal with the multi-headed dragon of human poverty. The WSSD presents us with a plan of action. The question is — would we join our heads, hearts, and hands to raise many swords to kill this multi-headed dragon so that we can have a better world not only for us, but also for our future generations, or would we wait, hesitate and then forget. The choice is ours, and who doesn't know, that in the ultimate analysis, human destiny is a choice, and not a chance.

Annex 1 : Millennium Development Goals (MDGs)

By 2015 all 189 United Nations member States have pledged to :

Eradicate extreme poverty and hunger

- Reduce by half the proportion of people living on less than a dollar a day
- Reduce by half the proportion of people who suffer from hunger

Achieve universal primary Education

Ensure that all boys and girls completes a full course of primary schooling

Promote gender equality and empower women

Eliminate gender disparity in primary and secondary education preferably by 2005, and all levels by 2015

Reduce child mortality

• Reduce by two-thirds the mortality rate among children under five

Improve maternal health

Reduce, by three-quarters the maternal mortality ratio

Combat HIV/AIDS, malaria and other diseases

- Halt and begin to reverse the spread of HIV/AIDS
- Halt and begin to reverse the incidence of malaria and other major diseases

Ensure environmental sustainability

- Integrate the principles of sustainable development into country policies and programmes; reverse loss of environmental resources
- Reduce by half the proportion of people without sustainable access to safe drinking water
- Achieve significant improvement in lives of at least 100 million slum dwellers, by 2020

Develop a global partnership for development

- Develop further an open, rule-based, predictable, non-discriminatory trading and financial system
- Address the least developed countries' special needs
- Address the special needs of landlocked countries and small island developing states
- Deal comprehensively with developing countries' debt problems
- In cooperation with the developing countries. Develop decent and productive work for youth
- In cooperation with pharmaceutical companies, provide access to affordable essential drugs in developing countries
- In cooperation with the private sector, make available the benefits of new technologies especially information and communications technologies

Source: http://www.undp.org/mdg

References

- Banuri, Tariq (1998). The Case of the Environmental Kuznets Curve. Background Paper for the Human Development Report 1998. Human Development Report Office, UNDP. New York. January
- Brocklesby, Mary Ann and Emily Hinshelwood (2001). Poverty and Environment: What the Poor Say (mimeo). Centre for Development Studies, University of Wales. Swansea. July.
- Chetty, Sharon (2002). "Johannesburg Summit Adopts Plan for Development". CHOICES. December. UNDP. p. 25
- Department of International Development (DFID), U.K., European Commission (EU), United Nations Development Programme (UNDP) and World Bank (2002). Linking Poverty Reduction and Environmental Management: Policy Challenges and Opportunities. New York July
- Jahan, Selim and Alvaro Umana (2003). "The Environment-Poverty Nexus". *Development Policy Journal*. Volume 3, April. Bureau for Development Policy, UNDP. pp. 53-70.
- Jahan, Selim (2002). Environmental Damage: Unequal Human Impacts (mimeo). Bureau for Development Policy Office, UNDP, New York, March
- ----- (1998). Consumption, Natural Resource Use and Environment: Impact for Human Development (mimeo). Human Development Report Office, UNDP. New York. January
- Janicke, Martin, Harald Monch, Thomas Ranneberg and Udo E. Simonis (1989): `Economic Structure and Environmental Impacts: East-West Comparisons', *The Environmentalist*, Vol. 9, No.3, pp. 171-183.
- Montimore, Michael and Mary Tiffen (1994). "Population Growth and Sustainable Development: The Machakos Story". Environment. Vol. 36, no. 8, pp. 10-31.
- Munasinghe, M. and W. Cruz (1995). "Economy-wide Policies and Environment: Lessons from Experience" (mimeo). World Bank. Washington D.C.

- OECD (Organization for Economic Cooperation and Development). (2001). "Poverty Environment Linkages. Working party on Development Cooperation and Development February 14). Paris
- Ostrom, E. C. Burger, E. Field, R. Norgaard and D. Policansky (1999). "Revisiting the Commons: Local Lessons and Global Challenges" Science. Vol. 284 no. 5412, pp. 278-282
- Quan, J., D. Barton and C. Conroy (1994). "The Economic Impact of Desertification in Northern Commercial Areas: Okahandja, Otjiwarongo and Grootfontein" (mimeo). September.
- Selim, Rasheda (2003). "Gender Dimensions of Poverty and HIV/AIDS: A Survey of Six Countries". *Development Policy Journal*. Volume 3, April. Bureau for Development Policy, UNDP. pp. 81-100.
- UNDP (United Nations Development Programme) (2003). Human Development Report 2003: Millenniu m Development Goals: A Compact Among Nations to End Human Poverty. Oxford University Press, New York
- ----- (2000). Human Development Report 2000 : Human Rights and Human Development. Oxford University Press. New York
- -----(1998). Human Development Report 1998. Oxford University Press. New York
- Weizsacker, Ernst Von, Amory B Lovins and L H Lovins (1997) : Factor Four : Doubling Wealth, Halving Resource Use. Earthscan Publications : London
- World Health Organizations (2002). World Report on Violence and Health. WHO: Geneva
- World Resources Institute (2001). World Resources 2000/2001. Oxford University Press. New York.