

**Achieving the Millennium Development Goals in an Environmentally Sustainable Way
– Some Perspectives Relevant For Zimbabwean Planners**

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Abstract

The eight Millennium Development Goals (MDGs) constitute an international declaration, which dictates the involvement of every member of the human race. Comprehensive development plans at various institutional levels are a prerequisite in order to make the goals achievable. It is without doubt therefore that the Regional, Country and Town Planning profession has got a special place in this endeavor. Historically, development in space was more often a haphazard and incremental process, whereby planning was mainly based on military defense, economic and other civil convenience considerations. There was little consideration for the potential present and future ecological, social and public health costs arising from development programmes and projects. The fact that more than 82 percent of the world population is living in developing countries implies a challenging task to third world regional and urban planners, in making sure that land use and other spatial development issues yield the best possible results, that are socially, economically and most importantly, environmentally sustainable. This paper looks at the challenges faced by planners in their planning process and plan implementation, to satisfy the Millennium Development Goal number seven. The paper also puts forward a number of proposals for environmentally sound planning as a vital contribution towards the possible achievement of the MDGs in Zimbabwe.

Key Words: Millennium Development Goals, Regional and Urban Planning, Goal number seven, Challenges, Environmentally sustainable planning.

Introduction

The Millennium Development Goals constitute an all – inclusive declaration, which dictates every woman and man to understand and support. Comprehensive development plans at various levels have got to be put forward, adopted, and implemented in order to make the goals' achievement a reality. It is without doubt therefore that the Regional, Country and Town Planning profession has got a special place in this endeavor.

The eight Millennium Development Goals constitute a package such that they cannot be tackled one after the other, but need a holistic, integrated approach involving sustained action by everybody and every

nation. The goals have been set at a time when every nation and region has been struggling to find foot on the sustainable development drive. They have therefore come in as reinforcement to streamline and invigorate these sustainable development initiatives. It is important to appreciate also that there is complementarity among the three, tenets of sustainable development. This implies development that is; economically viable, socially just (intra-generationally and intergenerationally) and at the same time environmentally sound. In practical terms however, each one of them as it also applies to the eight MDGs, requires specified attention. This paper is going to particularly focus on the potential role of planners in contributing towards achieving the MDG number seven, that is ensuring environmental sustainability in their planning processes.

As a starting point, it is important to note that in our endeavor to achieve the MDGs, lets be aware that our socio-economic system cannot expand indefinitely since it is limited by the finite global biosphere. As the development landscape grows larger, fuelled by increased throughput of energy and resources, our capacity to disturb the environment has increased. The disruption caused on the environment ultimately feeds back on the operations and welfare of the society itself. (Middleton, 1995) On this note, it is imperative that society's operations and behavior conform more closely with that of the total ecosystem because otherwise it may destroy itself. In an ideal setting, plan preparation is the primary task in conventional spatial development initiative and so this requires that our Planners see land and associated ecosystems as a community to which we belong and not as a commodity belonging to us. (Serageldin, 1995). On the basis of such an ethical standpoint, Planners become visionaries working to ensure a better future for the society and the environment.

It is interesting to note that whilst this paper attempts to pursue an environmental perspective, Planners in their noble duties can in no way win in addressing environmental concerns in space and time without taking aboard physical, social, economic, and political factors that prevail in communities and societies. In other words, it is hardly possible to achieve MDG number seven without addressing every other of the eight goals. There is need for a holistic, systems approach in dealing with the MDGs.

Planning and Development in the Traditional industrialised World

In the traditional society, urban development was more often a haphazard, incremental event than a deliberate well-planned process whose siting was mainly based on military defense and civil convenience considerations. (Wikipedia, 2006) There was hardly any consideration for future developments or events and as a result most of them have become incompatible with modern urban functions. A variety of social, economic and environmental problems have emerged in the process of city growth. Today several old cities have either been abandoned as historical monuments or subjected to demolition in an effort to incorporate some of their old components into the new urban structure and functions.

Actors in the traditional planning process focused on the top-down processes where the town planner created the plans. Most of the original plans and siting for traditional cities lacked foresight in terms of the potential mass movement of immigrants, the future expansion potential of the cities and resulting environmental impacts. This has resulted in many of them being today notorious for overcrowding, traffic congestion, chronic housing shortage, ballooning proportion of the city dwellers living in squalor, severe pollution (air, water, noise and land) and rising levels of crime among many other problems. Examples of such cities include London, Paris, Lisbon and several cities in the former socialist block of Europe. The sporadic growth of heavy industry that was largely fired by coal overwhelmed the environment. Most of the inland water resources in Eastern Europe are heavily polluted. Only 1% of Poland's water is clean enough to drink and half of the water available is so polluted that it is unfit for any use. (Henry and Heinke, 2004) The state of the environment in the region is so desperate that the governments must now face the prospect of a public health catastrophe or must invest in expensive pollution control systems that they cannot afford. This without doubt signifies a big challenge in attempting to achieve the MDGs not only for Poland but for many other countries.

The need for international cooperation is highlighted by the air pollution crisis in Scandinavia, Germany and the Netherlands. Their pollution control regulations are among the toughest in the World. This ironically does little good when winds bring Britain's loosely regulated power plant fumes and their products in the form of acid rain and smog. (Kumar, 2002) A continent-wide reform is therefore required if these countries are to enjoy the benefits of their environmental management efforts. This also helps to highlight the importance of an all – inclusive, international approach in making the MDGs a reality.

Planning and development in the Third World

In the developed world, urbanization has been triggered by a maturing, growing economy involving industrialization. The growing economy could accommodate the new city dwellers; provide transport, water, and other amenities. The situation is different in the third world, where the urbanisation process is triggered by rural unemployment, poverty and general remoteness in terms of access to water, health services and other amenities. The massive population movement into cities encounters stagnant industrial and economic growth and this results in rising unemployment levels with the city authorities lacking the capacity to; house the urban dwellers, and provide water, sanitation, waste management and others services. (Conyers, 2001)

For most of the third world cities, the development plans were there to serve the colonial master's interests. There was little consideration for the present and future interests of the majority natives and the local natural environment. Today most of the independent third world city authorities are struggling to cope with the demands of the massive influx of the liberated natives. The original plans of several decades old have since lost relevance to the current scenario. Much of the open areas originally set aside for certain future developments have been taken over by squatter settlements and other informal activities within and on the fringes of the city boundaries. (Miller, 1998) The local authorities in this case lacking the financial and

technical capacity to provide employment, build houses for the homeless and other conventional infrastructure tend to give a blind eye to the mushrooming informal developments. This scenario is prevailing in many third world cities such as Mexico, Cairo, Calcutta, Johannesburg, Lusaka, and Harare among many others.

It is worth noting that all these improper developments are taking shape in the eyes of our learned Planners. Together with the rest, they are trapped in a vicious cycle of poor original planning, low levels of revenue, low technical capacity to ameliorate the rote and a “there is nothing we can do” attitude. This situation of hopelessness has seen almost ninety percent of sewage in third world cities being discharged directly into rivers, lakes, and coastal waters without being treated and in Latin America alone, 98 percent of urban sewer receives no treatment. (Middleton, 1995) The 50-year-old sewer system in Cairo originally built to serve 2 million people is completely inadequate for the current 11 million (Miller, 1998) Some of Zimbabwe’s urban centers are contributing generously to the above situation.

The third world has got its slum dwellers accounting for about 17 percent of the world population. The World Bank (1996) estimates that more than 250 million people in third world cities have no access to safe drinking water. Many of the city dwellers have no choice but to use the soiled river or lake water for bathing, washing and even drinking. (Kumar, 2002). The above scenario is prevailing in most third world cities and it attributes to the increasing prevalence of a variety of public health risks. It is said that living in Mexico City is like living in a polluted gas chamber. Breathing the air is equivalent to smoking 2 cigarette packs daily and this has resulted in almost 85 percent of childhood illnesses resulting from pollution. (Middleton, 1995) About 80 percent of all illnesses in the third world are caused by water-borne infectious diseases (such as diarrhea, hepatitis, typhoid fever, and cholera), mainly from unsafe drinking water and an inadequate sanitation system. Respiratory infectious diseases that include tuberculosis are also among the biggest killers, which are largely attributable to air pollution, overcrowding, and other hazardous living and working conditions. (Kumar, 2002)

The fact that more than 82 percent of the world population is living in the third world implies a challenging task to regional and urban planners in making sure that land use and other spatial development issues yield the best possible results, that are socially, economically and environmentally sustainable. Their work should be based on the realisation that most decisions that are made by governments, local authorities, developers, and even individual community members in the third world have potential impacts upon the local, regional and global environment. The MDGs, number seven in particular, can only be achieved on the basis of such a philosophical standpoint.

Common Challenges for Planners

There are four groups of challenges that tend to counter environmental sustainability in planners' everyday tasks and their potential contribution towards the MDGs. These include: the anthropocentric attitude, political constraints, economic and technical challenges.

Anthropocentric Attitude to Development

This implies a human-centered environmental worldview, which regards the human as the planet's most important and dominant species. On this basis, the human being can and should manage the planet mostly for his own benefit. (Miller, 1998) The environment is considered in this case as a common good and there is always more that can be obtained from it through science and technology innovations. The attitude is environmentally disastrous in the sense that all economic growth is regarded as good, whereby the potential for growth is limitless.

There is tendency to focus too much on potential economic gains whilst ignoring the environmental and social dimensions of development projects. Cities, mines, highways, and various other types of developmental projects have been planned and developed with total regard to the status and carrying capacity of the physical and biological environment. (Park, 2001) This attitude constitutes one of the major contributions to the environmental crisis that is looming at both global and local scale. There has been enough evidence so far to suggest that continued environmental degradation triggers a vicious feedback loop, which in turn undermines the socioeconomic development prospects for the local and downstream communities and society. The accomplishment of MDGs would consequently become a pipe dream if environmentally disastrous practices are allowed to prevail.

Political Constraints to Environmental Sustainability

The planning process is of political nature in the sense that it is a political process, which involves the allocation of a scarce resource between competing interest groups. (Conyers, 2001) Political interference in spatial developmental issues frustrate the planning processes, leaving the planners powerless but always to blame by the public, for having "poorly planned" the project or settlement.

Developing countries are mostly characterized by a weak institutional framework and one of the commonly affected in this is environmental policy. There is a general lack of political will in the formulation of effective, environmental policies. In many cases, efforts are made and resources wasted in the formulation of a comprehensive environmental policy. The document is then sadly relegated to the shelf because of a number of reasons. In some instances there is either a lack of technical and financial resources or misappropriation thereof for commitment in the implementation, monitoring and review of the policies.

The independent Zimbabwe has had more than twenty years of struggle to come up with a comprehensive environmental management act. Since its enactment in 2004, there is nothing on the ground as yet to show its existence to protect the local environment. Environmental offenders in both the public and private sector still have the freedom to enjoy profits at the expense of the environment. Some politicians are reluctant to enforce prescribed environmental regulations in the country or in their constituencies for fear of losing support from the electorate. Examples of this nature, whereby unplanned or unapproved projects, or where the planned designs are disregarded can be cited in the land reform, housing delivery, and other infrastructural development projects.

There is tendency of lack of supportive policy framework in Zimbabwe, whereby planners are often relegated to being mere plan makers with hardly any involvement in the implementation and monitoring of the programmes and projects. Without the stewardship and vision of the author in the implementation of the plan, the project's physical and functional structure progressively lose its tone, often resulting in some of the local variables such as the physical and biological environment being silent victims. There are several examples to illustrate this and among them are developments on slopes, on stream banks and on wetlands, and the introduction of the infill concept, whereby houses and other buildings occupy some open areas originally set aside for greenbelts. This results in the disappearance of greenbelts and garden parks in urban areas. The planner in most cases as an employee has little to do to rescue the situation but to retire to one's office and simply wait for the month end salary. Out of frustration for failing to enjoy autonomy and command stewardship in the planning and project implementation processes, planners resort to transferring from one local authority or organization to another seeking professional freedom and self esteem.

Economic Challenges to Sustainable Planning

Until recently most development planning initiatives were specifically intended for economic benefits mostly to developers, with little or no regard to other critical concerns such as social and ecological sustainability. (Henry and Heinke, 1996) This has been and is still manifesting in areas such as water related projects, industrial estates, tourism development, agriculture, and various infrastructural developments among others. The public has with time increasingly become aware that these benefits, mostly to the minority, are often accompanied by environmental degradation and social strain affecting the general public. Cases of social discontent and project disapproval are increasing in frequency and magnitude as a result of the public's increasing environmental awareness.

Henry and Heinke (1996) go on to assert that the challenges to planners are therefore centered on finding an acceptable compromise between competing economic, social, ecological and political needs. Planners should develop alternative proposals, considering the many economic and non-economic functions the projects must fulfill. An example can be cited in river basin planning whereby methods must allow a broad interpretation that includes all aspects of social betterment, economic growth and natural environmental

quality. The act of balancing these multiple objectives to maximize overall social enjoyment is a real challenge to the country and town planning profession.

Poverty is one of the strongest constraints countering sustainable planning and development initiatives in less developed countries, and in a similar fashion, undermining efforts to achieve the MDGs by 2015. No wonder it has been accorded number one on the MDGs. Its effects manifest at different hierarchies, ranging from regional, national to local authority, community, and household level. Marsh and Grosa (1996) point out that rapid population growth, poverty, hunger, poor health and high child mortality rates that are characteristic of most third world countries are interrelated components of a self-perpetuating cycle. This situation makes sustainable planning and development in LDCs difficult or impossible to achieve even when absolute economic production increases, because each year, there are more people to share the increments of income, food, housing and other services. (Marsh and Grosa, 1996) **Numerous attempts to promote** environmental conservation and sustainable development have been made but have not yielded notable results mainly because little has been done to address poverty and the unequal distribution of resources. These two constitute major underlying difficulties in achieving global regional and local sustainability. The planning processes and the successful implementation of the planned projects are not spared either.

State Poverty

Zimbabwe and other poor countries lack adequate capital base to provide substantial capacity building to both rural and urban authorities for them to efficiently pursue desirable and environmentally friendly development plans. There is a general lack of adequate foreign currency base to finance the imports that are necessary for the implementation of socially, economically and environmentally sound development projects. In addition, developing countries are overburdened by an enormous demand for food, and other pressing social needs such as housing, health and education facilities, etc, such that there is no revenue to spare to attend to the growing problem of environmental deterioration. Drought among other political and economic constraints has seen Zimbabwe facing a critical shortage of food such that food imports have taken up much of the country's import costs at the expense of development initiatives.

Zimbabwe's second capital Bulawayo has in the last three decades been facing critical water supply shortages mainly due to its geographical location in the low-lying drought-prone region of Zimbabwe. Its reliance on the drying Nyamandlovu aquifer for water supply is increasingly becoming unsustainable, considering the high rate of urbanisation and industrial growth the city has recorded since 1980. This has adversely undermined the capital's industrial and general economic development prospects. The city's environmental health status has been grossly undermined by the evident health threats accompanied by the consistent water cuts to the millions of households, commercial and industrial sector and institutions in the city. It is disheartening to note that whilst a water and environmental health crisis is looming in Bulawayo, a

comprehensive plan to draw water by canal from the Zambezi river is lying idle for more than twenty years now.

The Government of Zimbabwe is being accused of being negligent and insensitive to the plight of the matebeleland region as a whole since the capital is taken as the nerve center of economic development spread effect in the largely underdeveloped region. The government on the other hand finds itself trapped in a vicious cycle of capital shortage, shrinking export-based industry and general economic melt down that it can not afford this project in the given circumstances despite it being an effective, long lasting solution to the city's development constrains. According to Henry and Heinke (1996) the demand for clean water for both rural and urban populations in the LDCs is identified as the most pressing challenge for planners and developers in the current years. For the developed world on the other hand, nations and local authorities have grown up with financial and technical infrastructure of water supply systems in place, whilst LDCs (Zimbabwe included) often do not have this advantage at the very time population growth and increased water needs make it most imperative. There are several other rural and urban authorities in Zimbabwe that have a similar predicament of an unsustainable population and spatial growth, in the face of declining quantity and quality of local water reserves. Whilst planners might realise that an adequate supply of clean water is an absolute prerequisite to the provision of proper health care, nutrition and industrialisation in space and time, the Zimbabwe government finds it difficult to avail the required amounts of capital for investment in sustained water development and sanitation.

The heavily indebted governments of Zimbabwe and other third world countries are desperate for foreign currency revenue to an extent that they are prepared to risk allowing foreign investors and local industries to degrade the environment for as long as they satisfy the production targets desired by the state. Environmental regulations and standards are grossly violated on this basis. This implies the violation of standards and regulations that would have been associated with the planning process. A case at hand in Zimbabwe is in the tourism industry. In 1995 a Strategic Environmental Assessment (SEA) of developments around the world heritage site of Victoria Falls was carried out by the World Conservation Union on behalf of the Governments of Zimbabwe and Zambia. (Moyo et al 1996) The purpose was to make predictions about the levels of tourism and other developments in an area of 30 km around the Victoria Falls over the next ten years. From these predictions, the likely impacts of hotel and other tourist-based developments, and other developments of the town were determined. The SEA came up with a number of recommendations to control developments and tourist visits in the area.

The results of the SEA show that there was progressive deterioration of the natural and social environment in the area as a result of steadily increasing visitor numbers, developments to accommodate and entertain the visitors, and the rapidly expanding local population and its associated social problems. This was exacerbated by the growing

inability of the local authority to cope with the provision of basic services such as housing, water supply, sanitation and waste management among others. Among the recommendations, was an immediate preparation of a statutory master plan for the resort and that no further developments were to be allowed until the master plan had been approved.

The fact on the ground today is that the master plan is yet to be in place but a couple of developments have already taken shape. A Rainbow Group hotel/conference center has been built in total disregard to the SEA recommendations. In addition the structure is ecologically too extensive and well above the tree height. Tourist visits are not being controlled and all this only reflects the government's desperation for foreign currency earnings through short-term measures that are unfortunately not sustainable.

The waste management system which was then seen (by SEA) as poorly managed is today much worse than ever before. This has resulted in the encroachment of baboons, monkeys, buffalos and elephants into town as they scavenge for edible garbage in the streets and at the open municipal dump site where there is virtually no basic disposal technique in place. This trend is most unfortunate in the sense that wild life is harmed in both health and behavioral terms, besides the fact that socially, the wild life turns into either a nuisance or a safety hazard to humans and property. (Wilson, 1997) Without sound government commitment towards sustainable planning and tourism development, the Victoria Falls area is likely to lose its current attractiveness and its wilderness value, which would in turn threaten its world heritage status.

In other industrial activities, there is heavy pollution that is going on unabated. Examples can be obtained from fertiliser and cement manufacturing companies in Zimbabwe. Having classified fertilizer and cement as strategic commodities for agricultural and housing development respectively, the government agencies have developed reluctance to police and subsequently punish the polluting companies for fear of their possible withdrawal from the production of these essential commodities. Intentionally and unintentionally, this scenario is common in several other production activities across the country.

Local Poverty

With regards to urban local authorities the costs of providing more basic services to accommodate economic and population growth often exceed the revenues collected. Such budget deficit is often settled by no other means but encouraging largely spontaneous industrial and economic growth from which they collect tax and other revenue. The long-term result is typically a destructive positive feedback loop of economic growth and leading to environmental degradation. (Miller, 1998) The cycle gets more vicious in which environmental deterioration leads to the general socio-economic decay of the community or settlement. (Serageldin, 1995)

Zimbabwe's capital Harare presents a scenario that is typical of the above problem. This is in the area of local environmental management and water supply. Harare is geographically built on the drainage basin of its water source to the effect that much of the city's poorly managed waste (both liquid and solid) finds its way to lake Chivero, the town's major source of water. The Chivero water has become so polluted that it has turned hypereutrophic. (Moyo, 1997) The occasional massive fish deaths in the lake are evidence for the high levels of pollution in the lake. The pollution levels in the raw water calls for sophisticated and expensive water treatment techniques and chemicals in order for the water to be safe for drinking and other use.

The critical water shortages that are currently affecting the city are mostly due to the city's dwindling water treatment capacity. The Zimbabwe National Water Authority (ZINWA) and Harare Municipality frequently run out of funds to import the treatment chemicals. During the month of August 2006, several suburbs in the city have gone for three weeks without water supplies, prompting residents to turn to nearby streams and rivers, which are heavily polluted. The shortage of water for such a long time in an urban setting is unbearable and this together with the use of untreated, mostly polluted water constitutes a big environmental health risk. The risk includes the potential outbreak of water-borne diseases such as cholera and diarrhea and health risks linked to toxic water-borne substances.

Almost all urban authorities in Zimbabwe are struggling to cope with service demands of the growing urban population. In this regard, it is sad to note that there are certain municipal housing projects in the local urban areas that have mushroomed on a full scale without piped water and sewer network. In the town of Chinhoyi for example, the Rusununguko residential area has got the entire 940 housing units already constructed and approved but without piped water and sewer reticulation. The local political leadership under pressure to deliver the promised, in the face of capital shortage, allocates open ground to the homeless electorate for housing construction, without even involving the local planners and engineers. The environmental health risks associated with an urban population concentration without water supply and sanitation facilities are without doubt quite high. Planners are challenged to critically examine such unsustainable developments, and find ways to stop this from turning into a pattern. The MDGs can never be accomplished by trying to solve one social problem through the creation of another.

At the beginning of 2005, Zimbabwe has been on the world record for the wrong reason of demolishing illegal, shanty settlements in the country's urban areas. This directly and indirectly affected the lives of several millions of citizens who had enjoyed 25 years of free stay in the urban areas. This was dubbed 'Operation Clean Up' which was to be immediately followed by a massive housing campaign for the affected. It is now more than one and a half years of struggle by local authorities to formally house the affected citizens. The total housing units so far constructed for the campaign hardly reach 10 percent of the estimated total. This clearly demonstrates that both the government and local municipalities embarked on a socially and economically costly project, that they could not afford. Proper planning with the necessary

institutional and economic support could have gone a long way to avoid the high levels of human suffering that this operation has been and is still linked to. Such unfortunate developments make Zimbabwe's prospects to achieve the MDGs even more remote.

Local authorities and planners of almost all the third world's urban centres have helplessly watched the mushrooming of slums within their city boundaries simply because they could not help providing formal housing facilities. Some of the dwellers are formal productive employees of the local industry, such that it is rather unwise to destroy their shelter, particularly when there is no immediate formal alternative housing facility in place. Whilst slums can never be accepted as ideal for human occupation, the demolition there of is a worse evil, given the inability by the local authorities to solve urban housing, poverty and employment problems that are bedeviling them.

Most if not all local authorities in Zimbabwe have got comprehensive local master plans, most of which are endowed with excellent population and economic growth-based predictions and future development projects. This includes plans for future water supply augmentation, options for the future urban expansion for residential, commercial and industrial purposes, and future siting for waste disposal among other initiatives. It is sad to note that several of these master plans have largely not been adhered to because of budgetary constraints prevailing in most councils. Conyers (2002) asserts that the high rate of urbanisation in the third world accounts for 90 percent of world urban growth in the new millennium. She adds that the urban population in developing countries which is rising at a rate of more than 3.5 percent per year is seriously straining urban authorities which already have trouble supplying their residents with water, food, housing, jobs, sanitation and other basic services.

It is important to note that the colonial authors of most of the current master plans did not anticipate the current population and development trends that are characteristic of the independent Zimbabwe and other LDCs. Their vision of development and urban growth did not include the majority natives as active participants. The development plans therefore mainly focused on the involvement of a small settler minority with only limited considerations for a few native workers and servants. (Moyo et al, 1996) The unanticipated massive influx of the politically liberated natives to the urban centres overwhelmed the new, largely native local authorities to the effect that the projected development plans were taken over by events. In this case, planners themselves due to a lack of focus, have been guilty of producing plans, recommendations and policies that are far too complicated and capital intensive to be applied by municipalities and councils having limited funds available. (Henry and Heinke, 1996)

The poverty cycle is even more vicious in the underdeveloped rural sector, where there is poverty, high fertility rates, low agricultural productivity and over-dependence on the environmental resources for survival. More than 75 percent of Zimbabwe's population is rural, of which the majority lives below the poverty datum

line. Rural district councils are even worse financially because of lack of a productive industry that constitutes the most common and reliable revenue base for local authorities. There is as a consequence, capital shortage to employ planners and prepare comprehensive sustainable plans and capital to implement such development plans. This is evidenced by a state of underdevelopment in much of Zimbabwe's rural sector that is associated with poor roads, and other social and economic infrastructure and amenities.

Poor accessibility and communication among other scarcities adversely undermine all forms of social and economic development prospects in a given region. The low levels of social and economic development in Zimbabwe's rural areas has seen more than 75 percent of the country's population, which is rural, depending largely on the exploitation of the local natural land resources for survival. Forest, soil and water resources in most parts of the country are heavily degraded as a result of the above spatial inequities between the urban and the rural. Marsh and Grosa (1996) suggest that the problem of building environmentally safe settlements in the third world remain largely unresolved. They added that patterns and magnitudes of population growth, production, consumption and waste generation have changed faster than planners have come up with sustainable solutions. With limited financial capacity, local authorities' contribution towards the achievement of MDG number seven will remain insignificant.

Household poverty

Household poverty, coupled with unemployment has forced individuals or communities to engage in coping strategies that undermine environmental sustainability, which might have been put in place in planned designs and projects. Examples include: rampant gold panning, deforestation for wood fuel, craft and other activities, stream bank cultivation, scavenging, illegal vending or vending at undesignated sites, sand digging and brick molding on stream banks, theft and vandalism of infrastructure/public facilities and improper use of sanitation facilities among many others. (Chenje et al, 1994) In the face of the economic hardships that Zimbabwe is currently experiencing, the above poverty-induced problems dominate the local situation

According to Marsh and Grosa (1996) the interrelated problems of poverty, rapid population growth, unemployment and food shortages lie at the root of natural resource and general environmental degradation in the third world. Until poverty is eradicated, large families provide the only social and economic security for the majority population in Zimbabwe. The impoverished will continue to deplete the basic resources such as forests, soils and water as they do what they must in order to survive from year to year. (Marsh and Grosa, 1996) Only when people have the means to produce enough food or earn a decent wage will they feel comfortable having smaller families and develop a keen interest in environmental sustainability.

Environmentally sound planning would not yield much result if poverty were a characteristic feature in the population involved. This is evidenced in Zimbabwe's land reform and resettlement programme. There has

been need to redress the imbalances that were engraved in the colonial land tenure system, which saw the majority natives being marginalised into crowded agro-ecologically poor communal lands. The redress involved the appropriation of much of the formerly white-owned prime farming land and allocating it to several thousands of the landless natives. The intention of government and planners was to economically empower the formerly marginalised natives through ownership of productive land, upon which they would embark on meaningful agriculture for both their livelihood and national development.

A combination of poverty, poor farming background and low levels of education resulted in the gross underutilisation of the farming opportunity. Instead of taking up serious farming, the “new farmers” embarked on unsustainable exploitation of forest and wildlife resources for short-term economic gains. The new farmers were tempted by the abundance and diversity of wildlife resources that had enjoyed a long history of protection under the whites-dominated commercial farming tenure system. The majority of the land reform beneficiaries, with the exception of a few have discovered cheap off-farm livelihood in the form of: poaching of wild animals, fishing, wood curving, wood fuel harvesting and various others extractive activities. Perimeter fences that have been in place to control the movement of wildlife and livestock have been vandalized or stolen for resale.

The illegal hunters would start veldt fires to trap or drive wild animals from their hidings. This alone is a major threat to the biological resources, soils and the water reserves in the affected areas and downstream. Barbaric fishing methods are often employed. Examples include using certain chemicals to poison the fish and obviously the rest of life in the aquatic and wider ecosystem. Mature hardwood trees are felled for low-income armature craft activities and this has aggravated the state of forest resources in Zimbabwe whilst the income obtained from the activity hardly had impact towards poverty alleviation. With poverty, most of the new farmers are struggling to solve the immediate needs of food, clothing and shelter that they are tempted to look for short-term livelihood options, which are unfortunately socially and ecologically unsustainable. The desperation goes as far as converting some of the agricultural inputs offered for free by government agencies and NGOs into either food or cheap merchandise for resale to wealthier farmers who are always ready to exploit the situation.

Gold panning in Zimbabwe remains an illegal activity but the situation on the ground does not suggest so. The activity is widely practiced along most of Zimbabwe’s surface drainage channels. Some senior politicians have publicly expressed support of the gold panners either on the basis of vote buying or their involvement in the illegal activity. Several river channels have been intensively degraded through massive siltation and the destruction of riverine vegetation. The safety of animals and humans is increasingly put at risk as a result of deep open pits and shafts that are left uncovered along the riverbanks. Thousands of lives have been lost as the gold panners often get trapped in the hazardous pits and shafts they work in day in and day out.

Some plan has been put in place for regularised panning, but the sustainable implementation of this is yet to come to reality due to a number of factors. Lack of political support, weak institutional framework, the ever-growing levels of unemployment and the consequent rising number of gold panners in the country. In addition to these factors, poverty is a major contributor to this ever-growing informal and illegal activity.

Whilst there is increasing awareness that community-based approaches yield the most sustainable results in development projects, this does not apply when a poverty-stricken community is involved. (Mink, 1995) There is a common saying that poverty is a victim and at the same time, an unwilling agent of environmental degradation. This is a fundamental factor undermining environmental planning.

Technical Challenges

Most third world local authorities are dogged by low technical capacity to adequately address the prevailing socio-economic and environmental challenges. The problem of inadequate or inappropriate employment of land use planning instruments is not uncommon either on the part of the practitioner or the local authority in general. Out of a variety of frustrations most of which are of economic or political origin, the problem of planning fatigue is encroaching certain sections of the planning profession. Without planning, the environment is among the most vulnerable victims.

Planning in the third world is commonly associated with a widespread use of Eurocentric, capital-intensive and labour-saving technology, which is mostly inappropriate and unsustainable in social, economic and environmental terms. This normally results in major disparity between planning designs and implementation. On the same note there is tendency of insufficient coordination between planning and budgeting as for example housing projects of several years old without water, sewer, waste collection and the expansion of cities without corresponding capacity to provide basic services. The hook up connection of water supply and sewer networks to link the new housing and other projects with the main network is mostly done without corresponding increase in the pumping capacity to cover the additional area, distance and consumer units. (Wikipedia, 2006)

The above scenario is typical of Zimbabwe's Ruwa and Chitungwiza satellites that are connected to Harare and also Danganvura and Chikanga residential areas of Mutare. The water tapes in these areas are dry most of the time because of sub optimal water pressure, particularly during the pick daytime. Water tapes in these areas run mostly in the middle of the night and when it's very cold during which demand for water in the older city area is markedly low. The hooks up points for sewer often experience pipe bursts or are always leaking. The ecological and public health implications attributable to such unsustainable urban sprawl can be very costly to both the local authorities and the local residents. Whilst the planners are under pressure to provide for housing and other developments in space, planning that does not take environmental sustainability aboard is self-defeating. Several planners in the country are yet to understand the concept of environmental impact assessment and its role in sustainable planning and development. This

has resulted in many projects coming through their hands with potential socio-economic and environmental costs that are difficult to rectify once the project has been commissioned.

Evidence has been put forward to the effect that the challenges for planners to ensure environmental sustainability seem endless. What can therefore be done by planners and for planners to make this millennium declaration achievable?

Planners and Environmental Sustainability

Sustainability in planning terms entails the ability to build an ecosettlement or other land use systems that are socially, economically and environmentally enduring and balanced. (Marsh and Grosa, 1996). Sustainable land use systems should be intimately interconnected and interdependent so that land uses in space, such as mining, transportation, industry, commerce and housing among others, enjoy mutually beneficial links.

According to Henry and Heinke (1996) planning of today should incorporate environmental impact assessments. This involves a procedure designed to identify and predict anthropogenic impacts on the biophysical environment and on human health and well-being. The impacts include those of planning designs, legislative proposals, policies, programmes, projects and operational procedures. The ultimate goal of the impact assessments is to interpret and communicate information about the impacts and this helps to provide insights into the problems and alternatives so that all parties concerned can make intelligent decisions. Economic, political, social, and technological factors play a part in both the creation and solution of problems identified. (Heinke and Heinke, 1996)

In areas of water resources planning for example, there is need for planning processes and comprehensive legislation, which allows a broad interpretation of river basin planning. This includes all aspects of social betterment, economic growth and natural environmental quality. Balancing these multiple objectives in order to maximize overall social enjoyment is always an extremely hard task for most planning and development scenarios particularly in Zimbabwe and other less developed countries. Poor countries are subjected to enormous pressure to produce and supply basic goods and services, such that environmental sustainability at national, local and household level is a far cry.

Marsh and Grosa (1996) points out that the problem of building environmentally sound cities in the third world remains largely unsolved. This is due to the rapidly changing nature of the problem of accelerated urban growth, industrial development, and high levels of consumerism that is juxtaposed by growing poverty. This has resulted in patterns and magnitudes of urban-based environmental problems changing faster than planners' ability to come up with solutions. The uncontrolled spread of cities and the related

degradation of the surrounding environment are by definition a form of desertification because city landscapes are significantly drier and ecologically poorer than the landscape they replaced. (Marsh and Grosa, 1996)

Planners among other key figures in the implementation of MDGs cannot afford to succumb to the challenges cited earlier on because; failure to achieve the goals has unprecedented costs to humanity in general and local communities in particular. This ideal demands a systems and all-inclusive approach, that fairly caters for all the three key components of sustainable development and at the same time, the eight MDGs. The following are some of the approaches that could be helpful to planners in their endeavor to achieve MDG number seven.

Putting People First

The social components of sustainability are crucial to the effect that failure to recognize the determinant role of the social actors has doomed many development programmes. (Cernea, 1995) The environment is at risk not from extra-terrestrial enemies, but from human beings. Putting people first in policies and investment programmes for environmental sustainability is therefore not a radical but a realistic approach. This involves the recognition of the centrality of social actors and their institutions in all stages of a project cycle. (Middleton, 1995) This is in line with calls that are championing for more democratic planning processes, thus allowing the public to make important decisions as part of the planning process. The approach helps to avoid conflicts and community project rejection, which has resulted in several costly white elephants around the country.

Planning practitioners are expected to incorporate the notion of "inclusive design" to anticipate various aspects of social behavior and consider aspects such as traffic calming, pedestrianisation and environmental cleanliness as ways of making life more bearable (Wikipedia, 2006). Jane Jacobs a notable environmental determinist suggests that infrastructural and environmental decay promotes abandonment, which in turn causes crime rather than crime causing decay. In the planning process, a social inventory has got to be conducted whereby housing, transportation, disease, crime, and poverty among other variables need to be prioritized. (Miller, 1998). It is in this area that social mobilization of the local community and other stakeholders has got to be administered in order to guarantee community acceptance and cooperation. This also includes environmental and health education, and awareness programmes so that the community participates productively in the local environmental conservation programmes. (Conyers, 2001) Partnerships can be sought with government ministries, agencies, non-governmental organizations and the private sector to make it more vibrant and sustainable.

The concerns of the local community have got to be addressed satisfactorily in order to make planners' contributions environmentally sound. A social impact assessment for any major land use project (dams, road construction, industrial, housing, irrigation projects, etc) is the most effective for this purpose.

The Ecological Planning Perspective

Much of the environmental degradation that has occurred in the eyes of Planners is attributable to the traditional attitude that natural resources are a free good and that growth is unlimited. With this, the structure and function of the natural environment was of little relevance to those interested in human affairs such as; developers, industrialists, politicians and even regional and urban planners. This attitude and associated development patterns has resulted in unprecedented environmental damage in both the urban areas and the countryside. (Lloyd, 1987)

Planning of today is consequently challenged to adopt the notion that the human social and economic activities only constitute a sub-system that operates within a larger, but finite ecosystem. Rees (1995) warns that disordering of the ecosystem (depletion and pollution) eventually interferes with the life-support systems sustaining the economy. Some development impacts have the potential to cause long-term, and even irreversible environmental changes. (aridisation, pollution, ozone depletion, species extinction) These have serious long-term social and economic costs to the local people and to humanity in general and on this note lets be aware that the poor are the most vulnerable to environmental degradation. (Cernea, 1995)

The involvement of ecologists and other specialists in the planning process will enable a comprehensive estimation and prediction of both the economic costs of damaged ecosystems and the benefits of conserving such systems. (Rees, 1995) The same process can come with mitigation measures to the anticipated damages. Tools such as the environmental impact assessment and cost benefit analysis for major development projects are consequently vital if the anticipated development is to become environmentally sustainable.

Miller (1998) laments that most cities are places where they cut down the trees and name the streets after them. Considering the social, economic and ecological value of trees, this is a tragic loss to the human population. According to the American Forestry Association one tree provides over US \$57000 worth of air conditioning, erosion and storm water control, wildlife shelter, and air pollution control over a 50-year lifetime, he added. This is besides the numerous social and economic values that can be attached to the same tree.

In practice, Planners should have foresight to preserve blocks of open space in the form of municipal parks or green belts. The designation of land parcels for ecological use can best be facilitated through the zoning approach, whereby all the necessary land use categories for a proposed settlement are identified and catered for at the planning stage. Principal zoning categories include commercial, residential, utilities, transport, recreation, (parks and forest reserves), bodies of water, wetlands, floodplains, and wildlife preserves. This approach promotes land use harmony and environmental sustainability because it helps to control growth and protect ecological parks from degrading types of development.

A high level of discipline and professionalism is however demanded on the part of the local authority because there is always a temptation or pressure to give in to economically or politically powerful developers, thus allowing them to manipulate the zoning pattern. Open parkland is the most threatened in this case. Town Planners are supposed to convince local governments to exercise their powers to control the rate of development by limiting the number of building permits, sewer hookups, roads, and other services that threaten urban-based ecosystems. (Wikipedia, 2006)

The local authorities can take various other measures such as the following; legal, economic and social instruments to protect croplands, forestland and wetlands from ecologically unsound developments. Environmental impact assessments for proposed developments. Harsh penalties for offenders, tax breaks for property owners who agree in legally binding conservation easements to use their land only for specified purposes such as agriculture, wildlife habitat, and non destructive forms of recreation. Development rights that restrict certain land use. Environmental education and awareness campaigns among other instruments.

Providing open forest space and controlling urban growth around a settlement can also enhance ecological planning. A greenbelt is established around the city upon which encroachment is strictly prohibited. The belt forms an open natural space for recreation and other non-consumptive uses. The expansion of the town will only be in the form of satellite towns built outside the belt. (Andrew et al, 1996)

Conyers (2001) points out that urban centers are not self-sustaining systems in terms of resource demand. Supplying the urban dwellers with resources is a major reason that humans have disturbed 73 percent of the Earth's land area. Besides being responsible for much of the countryside resource depletion, urban centers account for much of the pollution problems manifesting in the countryside. Government policy and legislation should be effectively put in place in the form of a variety of instruments to control resource plunder and pollution. On the basis of such support, development project planning and implementation will have greater chances of being environmentally friendly. Working towards the MDGs can hardly come to fruition if the ecological perspective is not taken seriously in the planning process. (Rana, 1995)

Economic and technical considerations

The degree of resource extraction and waste generation by a given population and the harmful environmental impacts associated with them varies from region to region. The difference is largely based on the levels of economic development of the population. Lloyd (1987) suggests that urban environmental problems for example, can be grouped into two broad categories: those associated with economic growth or affluence (mostly in the developed world) and those associated with poverty, that is those in the developing, infact poorer countries of the world. Economic factors therefore significantly influence the nature and extent of environmental problems affecting a population and in turn also influence the capacity of the population to deal with the problems.

Among the challenges faced by Planners as discussed in this paper, is the lack of financial and technical capacity to plan and implement environmentally sound land use and other development projects. The bulk of environmental problems ravaging both the rural and urban third world are largely due to poverty at different institutional levels. The situation is aggravated by the fact that there is a lack of capacity to break the vicious cycle by means of embarking on rehabilitation work, efficient and environmentally friendly production systems, services and lifestyle or the use of environmentally friendly resource alternatives.

The following are some of the capital and technology demanding approaches to environmental sustainability.

- Provision of well planned and designed industrial estates, which are in conformity with basic environmental standards and regulations.
- Provision of a network of high quality industry-support infrastructure and services to attract investment, employment creation and poverty alleviation opportunities. This collectively increases local revenue that is necessary to drive sustainable socio-economic development.
- Adopt orderly, efficient, and equitable development and arrangement of land resource, implementation of tools for land use plans including zoning and other development regulations as well as capital improvement programmes.
- Adequate and equitable provision of housing for all local income groups, together with corresponding provision of water, sanitation, waste management, health, education and other social service programmes to improve the standard of living, especially for those lacking in resources and/or opportunities.
- The rejuvenation of urban structure; integrating transport network, sewer and water reticulation with current land use planning to cope with the increasing population size /tastes and expanding city. Introducing a modern public transport system along rationally selected high-density corridors. Introduce measures to discourage motor vehicles in the inner cities by closing off some streets to automobiles and building a network of sidewalks and bike paths in the business district
- Introducing a community-based domestic solid waste management system involving community participation in waste reuse, waste separation, waste collection, recycling, disposal and waste recovery. This will have the following benefits; cut on the waste management costs, create employment, save resources by making economic use of waste, reduce the local environment's waste load, and eliminate potential environmental and public health risks.
- Embarking on rural development through equitable infrastructural development, properly planned land reform, and industrialization. The economic empowerment of rural communities and women in particular will give a big relief to the natural resources upon which the rural poor has traditionally been over dependent
- In terms of technology, there is need for massive investment in science and technology research in order to promote local ingenuity. It must be ingenuity that uses local resources and is compatible

with the characteristic low foreign currency base, low levels of technology and skills, together with an abundance of mostly unskilled labour.

For developing countries, the use of Euro centric capital-intensive and labour-saving technology is mostly unsustainable in social, economic and environmental terms. There is therefore need to promote appropriate, simple technology that is capital-saving and labour-intensive. Zimbabwe's waste management system has largely been crippled by among other factors, the consistent breakdown of the imported waste compactor vehicles whose technology we are not familiar with and spare parts, which need the foreign currency that is scarce in the country. Planning processes and designs should integrate appropriate technology that is largely based on exploiting local opportunities such the abundant labour force. The use of tractor and trailer transport is ideal, cost effective and technologically appropriate for the poor economy and largely unskilled labour force. Research towards the possible use of pushcarts in waste collection within the cities should be encouraged. Many development programmes and projects in Zimbabwe have resulted in unprecedented socio-economic and environmental costs simply because they had foreign design inputs and depended on foreign technology.

The economic and technical empowerment of the general community constitutes a fundamental base for sustainable development. When poverty is eradicated, and the community living standards improved, only then can environmental sustainability campaigns make sense to the people, both the rural and urban. (Parks, 1995)

Conclusions

Planning within the sustainable development framework implies plans and strategies designed to reduce environmental impacts and maintain the resource base while allowing a certain amount and type of development to take place. For Zimbabwe and other less developed countries the accomplishment of the MDGs will require a major change in the political thought and government policy followed by substantial human resources, technological, and economic investment. The planning perspective at both state and local authority level should recognise that all land uses, whether rural or urban are working parts of a wider ecosystem, whose resource base has to be sustained if humanity is to thrive.

Human land use traditionally suffers from lack of planning, management, and a concept of sustainability. Faced with limited resource supply, the world population tends not to reduce and manage its demands on the environment, but instead overuse the available environmental resources, leading to environmental damage most of which is costly to rectify or irreversible.

Human population growth is the single greatest root cause of the environmental crisis particularly for the less developed countries. It is the single greatest challenge to environmentally sound development planning and implementation. With real economic growth slowing or even stagnant, in the face of increasing population and poverty in Zimbabwe, environmental protection has been heavily compromised. It has increasingly become clear that environmental protection must be tied to programmes that promote sustainable development. If poverty is to be reduced, Africa needs improved forms of environmental planning and management, applied much more extensively. Only this way can the vicious circle of poverty be broken, whereby not only do environmental problems contribute to poverty, but also poverty forces people to contribute to environmental degradation.

The accomplishment of the Millennium Development Goals should involve and benefit not only certain individuals, groups, nations or regions, but the entire human race and the world. An all inclusive, multi-sectoral approach is central in this endeavor, whereby every professional and individual is morally obliged to put one's input in any form possible. It is for this reason that Regional Country and Town Planners are looked up to diligently make their contribution in making sure that environmental and health values are integrated into all land use and other community and regional development plans.

The eight Millennium Development Goals are intricately related to the effect that achievement can only be through a simultaneous address of all of them with equal social, economic and technical input. It is appreciated on this basis that whilst the paper attempts to specifically focus on the environmental perspective in planning, the interconnected nature of the goals has been prevailing throughout the discussion.

Distinct populations and different cultures are inextricably tied to the global community by a common environment such that individuals, communities and societies must learn to think globally and act locally in their everyday activities in order to strike a sustainable balance between human needs and the planet's integrity.

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