Human Resources Development for Managing SAPs and Integrating Environmental Concerns in Tanzania

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1. Introduction

1.1 Background: Sustainability of SAPs

Developments in the World Economy in the 1980s, and certainly the 1990s as well, have witnessed polarity of development experiences between developed and developing countries. The disappointing performance of the economies of the latter countries, especially the issue of poverty, led to debates centering around policies that will bail out these economies.

Among the regions that have been a subject of much research and policy prescriptions is Sub-Saharan Africa, with the 1980s and 1990s being basically a period of structural adjustment programmes designed to improve macroeconomic performance. After almost a decade of implementing SAPs in most Sub-Saharan African countries, the debate is now even more heated—on whether adjustment does or does not work. The World Bank, the architect of SAPs, is on the defensive pointing out that SAPs *can work* given certain conditions (Husain, 1994).

The designing of the reform programmes has undergone certain qualitative changes. While in the early phase the emphasis was on macroeconomic aggregates, the second phase attempted to address the social services sector and poverty. More recent, especially in the 1990s, environmental issues have been

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incorporated to the extent of being explicitly attached as a conditionality for lending.

The central question that will continue to be controversial for many years to come is the sustainability of reform programmes, and the impact of these on poverty alleviation. It is absolutely undesirable to talk of aggregate improvements when poverty is on the increase. Unfortunately this is the case.

A recent World Bank study (1994) revealed a large and growing proportion of the population in Sub-Saharan Africa living in poverty (xi). It is estimated that between 1985 (pre-reform period) and 1992 (reform period) poverty increased by 1.5 percent ("stubborn poverty"). The study estimates that a minimum of 4.7 percent GDP growth is needed to achieve poverty reduction (44).

As pointed out earlier, the question of the reforms working is still controversial. A number of questions arise. Is it a problem of the designer—e.g. failing to incorporate country-specific political and social realities? Have the majority of the implementing countries failed to react to the medicine?

Following the paper by Husain (1994) which identifies eight variables for the success and sustainability of reforms, this paper examines the issues of capacity in a broader sense. It specifically addresses institutional requirements for managing SAPs, and the ability to incorporate sustainable development and environmental issues in Tanzania.

Our approach will involve examination and analysis of comparative data from existing data bases as well as complementing with generated data.

The paper is organized into four sections, including the introductory part. The evolution, as well as the current status of human resources development in Tanzania is revisited in section two. Section three carries out an assessment, drawing comparative experiences from other countries. The final section is devoted to concluding remarks.

1.2 SAPs, Sustainable Development and the Environment

Structural Adjustment Programmes (SAPs) are a household name to almost all the actors in the economy. The interpretation of SAP policies differs from one group to the other, depending on the interest of such a group. Let us look briefly at the definition of these terms before looking at the link between the three.

In general SAPs are economic programmes designed to stimulate the transformation of the economy. SAPs have far reaching impacts to the entire economy and even to political dimensions.

In Tanzania the first serious attempt at addressing economic problems was made in 1982 when the first programme was drawn. The main hallmark of this programme which lasted up to 1985 was the 1984/85 budget in which modest efforts were made at improving economic performance. In 1986 the Economic Recovery Programme was adopted with explicit and serious government actions in the areas of liberalization of internal and external trade, exchange rate adjustment, and fiscal and monetary restraint. ERP I, as this programme is known, was followed by subsequent programmes along ERP I lines.

The term sustainable development is also becoming a household term to researchers and policy makers, though the full dimensions may not be known to many. The term, it should be emphasized, is not neutral but depends on the economic, social and political setting. Thus sustainable development must be viewed differently from the perspectives of developed and developing countries. Perhaps the best definition is provided by the World Resource Institute (1992), which integrates poverty and environmental conditions:

> In poor countries sustainable development... means economic development to provide jobs and alleviate poverty; investment in human development to stabilize populations and enable people to improve their well-being and their livelihood; protection for natural resources, in large party by providing poor and landless people with alternatives to the over- exploitation of marginal lands; and support for improved practices and technologies that are appropriate and efficient in local contexts (30)

As one may notice, the definition is much more broader than conventionally used. What it sums up to is material improvements in the present without compromising the ability of future generations to meet their own needs (see Sterner 1994, p. 193).

Environmental policies relate to policy instruments that are designed to protect the ecosystem. Such policies may be of the "command and control" type (i.e. rules and regulations) or economic/market-based such as taxation.

From the brief definitions provided above, it should be noted that SAPs and environmental policies are means towards sustainable development.

The interpretation of sustainable development has undergone some

refinements. While in the 1950s and 1960s growth/development and economic efficiency were the key issues, in the 1970s equitable growth (social or poverty redress) became the main agenda item. After the 1980s the environmental/natural resources have taken prominence.

Viewing sustainable development in its broader sense then, all the main agenda items have to be incorporated. SAPs contribute to sustainable development through encouraging growth and efficiency while environmental policies are designed to ensure optimal use of the ecosystem.

2. Human Resources Development in Tanzania: Evolution and Current Status

2.1 Background

At the time of independence in 1961, Tanzania faced acute local manpower shortage. During the many years of colonial rule only a handful of Tanzanians (by then Tanganyikans) had the prerequisite training.

The newly independent government then set out to institute drastic changes in the education system recognizing that education is a "major tool for change and development" (Ishumi, 1978; Galabawa, 1994).

These changes include:

1. The abolition of the tripartite education system where the three groups of Whites, Asians and Africans were receiving education on a discriminatory basis in terms of content and financial allocation regardless of their demographic proportions. For example, in 1960, 30 percent of the education budget went to less than 1 percent of the population constituted by Europeans and Asians. The remaining 70 percent went to 99 percent of the entire population, mainly Africans (Ishumi 1978:43). The abolition was aimed at ensuring equitable distribution of resources to the majority of Tanganyikans, and provision of necessary skills for them to take up technical and administrative positions in the system. However there were other non-governmental organizations which offered education, again to a selected few, mainly along religious lines. The 7 christian missions offered education in those areas where they had strongly established themselves (Ishumi & Maliyamkono 1980:210). The Missionary schools had no access to government subsidies.

2. The abolition of school fees in 1964 was yet another move to provide education for all. It was conceived that school fees acted as a main barrier to the majority of Tanzanian school-going pupils, given the fact that the majority of Tanzanians were in one low income bracket.

3. In 1974, Universal Primary Education (UPE) was adopted, another move to ensure accessibility to education for all children, by the year 1977.

4. In addition to these formal training institutions, adult education was introduced in 1970 in order to increase the literacy rate.

2.2 Current Status: Manpower Training and the Output of Graduates in Tanzania

There are several and various levels of manpower training in Tanzania. Two broad categories of training approaches can be identified: formal, and informal. The formal category encompasses programmes offered at different levels from post-primary education institution to polytechnic and other professional institutions at tertiary level. Primary education is less focused to provide the basic requisites for high levels. Diversified programmes are offered at each level to see to it that graduates serve various aspects of the economy of the country on the one hand, and provision of employment opportunities to these graduates on the other hand. It is for this reason that such training programmes are very specific and have sometimes been accused of being narrow to the realities of life. For example, it has been observed by Schneider (1992:50) that formal methods are limited to small section of the population, namely those who are in formal institutions, and that for in-service training, it is difficult to reach the rural working population. Nyerere (1970) accused formal education for limiting access of the entire population, including adults, to education.

Apprenticeship has been the main training approach in the informal category of training. This has been seen to be more focused and relevant to the beneficiary despite the fact that it is limited in terms of the number of trainees given not only the type of skills but also the absorption capacity of the economy.

The training programmes in Tanzania are not well documented and lack proper coordination. This makes it difficult to establish the actual capacity and the type of programmes offered by each training institution. A study by ESAURP (1994) sheds light on various aspects of Tanzania's training capacities,

and the type of programmes offered by different institutions. It is evident from the study that Tanzania still lags behind in the region in terms of the number of pupils benefiting from the education activity. The rate of drop-out also appears to be on the increase. ESAURP (ibid) identifies about 142 training institutions with an intake capacity of about 19000 entrants. The actual intake for non-degree programmes is around 14000 per annum, with about 5000 places unutilized. There is an average output of 11300 graduates. For some reasons the drop-out rate stands at around 20 percent. There are over 240 programmes offered in these institutions. In addition, there are 3 full-fledged Universities and one constituent college with an intake capacity of 4500 (Ishumi 1994:317). Table 1 provides a summary of the intake and output of tertiary capacities by award per year. It should, however be noted that one of the three universities took off in 1994 and its first batch of graduates may not be realized before 1997.

Table 1: Tertiary Institutions Training Average Capacity per Annum by Intake and Output

Award	Average Intake			Average Output		
	Male	Female	Total	Male	Female	Total
Certificate	5081	3104	8185	4273	2411	6684
Diploma	3194	1248	4442	2502	1042	3544
A/Diploma	949	257	1206	728	207	935
Postgraduate	111	26	137	96	24	120
1st Degree	884	159	1043	850	150	1000
MA/MSc Degree	100	100	200	140	25	165*
Doctoral	1-3	1	2-4	1-3	1	2-4*
Total/Average	10322	4895	15217	8592	3860	12452

Source: ESAURP 1994: 192; UDSM Admission Office

* Varies from year to year depending on Applicants qualifications and sponsorship.

It is clear from Table 1 that females are under-represented in tertiary institutions, and this has been documented elsewhere suggesting a quick reversal of the trend given the almost 1:1 ratio at primary school education in 1993 (BEST 1994:1-16).

There is also a trend of students enroled for some programmes to drop-out before their graduation. This can be explained by many factors, but the common ones include discontinuation after failing to fulfil the requirements for promotion to the next level. For example, at the University of Dar es Salaam and its continued college—Muhimbili University of Health Sciences—there is a significant number of students who are discontinued after their first year of study because of poor academic performance. Another reason for drop-out is that students drop out to join other programmes within and or outside the country considered to be better in terms of future gains upon employment. Pregnancies among female students is another common cause of drop-out from institutions.

In addition to the number of students who drop-out from the programmes, some of the institutions have not been able to utilise their installed capacity to the maximum. ESAURP (1994) points out a difference of 5,000 places in non-degree programmes. There are plausible indicators of underutilization of capacity the universities in Tanzania given the time the rooms remain vacant during the day and may be the night hours. It is true, however, that other factors, such as residence, impair the enrolment in these universities in the absence of private affordable hostels around the campuses.

2.3 Relationship of Current Programmes with SAPs and Environmental Issues

One of the main facets for preserving the environment has been identified to be education. Both formal and non-formal education have been associated with good understanding of environmental education among the local people (Galabawa 1994:292; Schneider, 1993:50). However, another prerequisite for proper understanding of the environment and its related problems is the proportion of medium and high level "graduates". The prudence to revisit the existing programmes is only credible if these programmes in Tanzania's institutions are focused to address some of the issues on environment.

Both degree and non-degree programmes have been scrutinised with an intention of assessing suitability to man and integrate SAPs and environmental

policies for the development of the economy. The analysis of the degree programmes offered by the three universities, found out that most of the programmes are general with no considerable component on environmental issues. There are however, few programmes with courses on environment issues. These are found in the departments of Civil Engineering, Botany, Zoology, Geology, Economics and Geography at the University of Dar es Salaam. At Sokoine University of Agriculture, the programmes include courses in agriculture, forestry and agriculture engineering. The theoretical orientation in these courses, however, deny the graduates some practical elements in that they have some problems in addressing day-to-day life environmental problems.

Another aspect meriting attention on the inadequacy of the current programmes is the actual number of students studying in these programmes. For example, at the University of Dar es Salaam the number of students taking geography courses ranges from 10 to 50 per year, and in most cases it is the same people who study Botany and or Zoology courses. The number of those studying civil engineering is also limited, as is for agriculture and veterinary at Sokoine University of Agriculture. Thus, with 1000 graduates per annum from the universities, less than 200 graduates with doses on environment is quite negligible to bring about any noticeable change on environmental issues.

Similarly, programmes in non-degree offering institutions are also limited in focusing at environmental issues and other related problems. Programmes related to environment are offered at all Ministry of Agriculture Training Institutes (MATI) (offering both certificates and Diplomas), Ardhi Institutes - Tabora, Morogoro and Dar es Salaam (offering certificates, diplomas and advanced diplomas). There are also postgraduate programmes at Ardhi Institute - Dar es Salaam). Other institutions include Rwegarulila Water Resources Institute, Institute of Rural Development Planning, Mpwapwa Health Officers Training College and College of African Wildlife. Again, these programmes cater for just a small number of students. For example, the Dar es Salaam Ardhi Institute enrols 25 students per year in all environment related courses. In other institutions the number in each course does not exceed 50 students per year. The limited number of graduates in this field, together with the generality of these programmes make it difficult to have not only a significant change in environmental issues, but also changing attitudes and peoples' perceptions about environmental issues.

2.4 SAPs and Environment Relationship with Programmes

Accepting the limited capacity of training at tertiary levels prompts some questions on the validity of some SAPs on training, and funding these training programmes. While the thrust is to reverse the trend of massive expenditure for example on education in order to reduce government expenditure, there is a possibility of continued decline in the number of graduates at tertiary levels for lack of funds to pay for their education. Equally true, the relevance of education may not be quite clear in the face of the majority if employment is not guaranteed especially for students from low income backgrounds.

Similarly, limited resources allocated to education will for sure lead to inadequate training for those enrolled in such programmes. Lack of adequate supply of teaching-learning materials, and the lack of practical training in the field during their training greatly limit training. For example, the Ministry of Education and Culture has abandoned teaching practice for certificate and diploma trainees in training colleges. At the University of Dar es Salaam practical training in the field is offered only to Engineering, Geology and Education students. Those in the general degrees with environmental components have no opportunity to be in the field. Needless to say, they are denied the opportunity to link the theory and practice for effective learning.

Galabawa (1994:292) noted that:

> the ultimate success of SAPs and other similar macro-economic measures or policy reforms efforts is very much contingent upon the presence of a number of factors, not the least of which is the availability of a productive, flexible and responsible skilled labour force....

This position presupposes training and broad based training in relevant fields.

In this regard, it would seem that while the adoption of SAPs is generally a welcome move, environmental issues still pose a challenge to accommodate such measures if they have to be adequately addressed. A few examples can be cited to exemplify the situation. Community support in funding the social services is a pre-maturely introduced measure given the financial position of the people. What is likely to happen is that the people might refrain from getting such services which on the other hand could be harzadous. There are already indicators in the urban places where streets have become dumping places to dispose of waste.

Our discussion on the current training, especially at the tertiary level, has therefore revealed inadequacies in terms of both numbers and specialties. This casts doubt on whether given the magnitude of economic and environmental problems, the capacity is there to manage SAPs, and be able to incorporate in them environmental issues.

It should be borne in mind that policy discussions usually take place with highly competent technocrats from the IMF, the World Bank, and bilateral donors. Tanzania needs adequate competence to be able to participate effectively in the discussions. Otherwise the Tanzanian delegation may be reduced to mere listeners or be forced to rely on expatriate expertise.

3. Assessment of the Capacity for Managing SAPs and Integrating Sustainable Development and Environmental Policies in Tanzania

3.1 Capacity for Managing SAPs: Some Comparisons

It is of paramount importance to look at Tanzania in relation to others in the region. This comparison will help us to identify the successes and difficult areas that Tanzania has faced as a common problem, and/or as a unique feature in adopting SAPs and trying to integrate some social policies for development.

With almost similar demographic features and other economic aspects as some other countries in Africa-South of the Sahara—for example Kenya and Uganda—there are sharp contrasts in what has been spent on education in Tanzania. For example, while Kenya and Uganda allocated 18.1 and 27.0, 11.3 and 22.5 respectively, for education in their budget in 1980 and 1989, Tanzania allocated only 14.3 and 14.0 as percentage of their total government expenditure (ESAURP 1994:vii, Galabawa 1994:295).

Tanzania also lags behind in terms of primary level gross enrolment ratio and secondary level gross enrolment ratio (SGER). For example, while SGER for Kenya, Uganda, Zambia, Botswana, Ghana and the Sub-Saharan average ratios are 23, 5, 16, 21, 42, and 17, the ratio for Tanzania is just 3 which is only close to Uganda that has 5. In other countries the ratios are more than five times. The situation of enrolment in tertiary education is appalling. As already indicated above, tertiary institution training capacity stands at 18000 students per year. This figure is below half the university students population in Kenya, of 40,000 per annum. The student population in Tanzania has just increased to 4500 in the academic year 1993/94 after the Open University admissions.

ESAURP's (1994) comparison of the proportions of college goes out of 100,000 sheds more light on this. For example, Tanzania has 25 out of every 100,000 while Kenya, Lesotho, Zimbabwe, Burundi and Rwanda have 121, 333, 396, 65 and 35, respectively. It is interesting to note that even the smallest countries in terms of both demographic and physical size have higher proportions. More figures are given in Table 2.

Table 2: Tertiary Educational Attainment in Low Income Selected Countries in Sub-Saharan Africa

		No. of Students per 100,000 inhabitants	Students enroled by % of total population	
			in general science	Natural sciences Maths, computers & Engineering
1.	Benin	179	0.04	0.03
2.	Burkina Faso	57	0.014	0.005
3.	Burundi	59	0.102	0.007
4.	CAR	103	0.01	0.004
5.	Ethiopia	63	0.025	0.013
6.	Ghana	125	0.048	0.030
7.	Kenya	106	0.06	0.022
8.	Lesotho	158	0.014	0.013
9.	Madagascar	383	0.17	0.115
10.	Malawi	59	0.013	0.006
11.	Mali	81	0.03	0.01
12.	Mauritania	248	n.a	n.a
13.	Mozambique	10	0.008	0.004
14.	Niger	48	0.01	0.007

15.	Rwanda	33	0.012	0.007
16.	Sierra Leone	55	n.a	n.a
17.	Somalia	72	0.084	0.038
18.	Senegal	209	0.08	0.03
19.	Sudan	173	0.04	0.017
20.	Tanzania	26	0.008	0.004
21.	Togo	156	0.04	0.025
22.	Uganda	65	0.021	0.007
23.	Zaire	137	0.05	0.009
24.	Zambia	128	0.026	0.018

Source: Stewart, F. *et.al.*, 1992: 138-9/140-1

It is clear from Table 2 that Tanzania lags behind all the low income countries except Mozambique which has 10 out of 100,000 inhabitants. Other countries in this income bracket have relative higher figures compared to Tanzania. On the tertiary level Tanzania also records relatively low performance of students in technical fields, compared to others. It ranks second with Mozambique from the bottom in the general sciences with 0.008, and again with Mozambique with 0.004 in the natural science, mathematics, computer and engineering. The middle income countries in Africa have recorded higher performance across with an average ranging from 0.02 to 0.09. Other countries with performance in bracket like S. Korea (3606, 1.46 and 0.76), Hong Kong (1410, 1.06 and 076) Brazil (1140, 0.4 and 0.24) and Thailand (1998, 0.7), have made big achievement in educating their people not only in general sciences but also in the natural sciences and mathematics related fields.

The above observations are not meant to disqualify the achievements Tanzania has made since independence, but to show how stagnant it has remained for the three decades, and the absence of comparative advantage to use education as its tool for development. It has already been indicated that there is a strong relationship between development and education levels.

On the nature of the programmes that are related to environment, Tanzania has a disadvantage of not having developed environmental focused programmes to sensitize its population on this sensitive area. There are limited course programmes with limited admissions. A survey by Schneider (1993) has indicated greater achievement in terms of the programmes that have been developed in Kenya, India, Sudan, Pakistan, and Nepal which have a greater focus on environmental issues. In these countries there are established centres offering environmental programme to a large number of students.

For example, Kenya has a one year full course to offer a wide coverage in schools on environmental issues. Schneider also commends community participation in the form of environmental clubs where members not only enhance their awareness on the environment but also educate the rest and the young generation. In Tanzania, community participation in environmental issues is still lacking direction. Going by the practice, it is convincing to assume that the majority are anti-environment. Some projects on environment have not proved much success compared to what is reported elsewhere in the region. Impending problems in Tanzania include mismatch between the planners and decision makers on environmental issues and the general public (Kikula 1994:354). Also Kikula (ibid) identifies a problem of poor coordination even among the already existing structures such as units at ministerial levels.

The recent establishment of the National Environmental Management Council might help to clear some of these issues. However proper strategies might be necessary as the structures are not firm enough to grant assurance of its operations. For example, the council is centered with minimal representation at lower levels. There are also liquidity problems not only to do research and out-reach programmes, but also to handle some administrative issues at the headquarters.

4. Concluding Remarks

4.1 Managing SAPs and Incorporating Sustainable Development and Environmental Policies: a Human Resources Development Issue

Any programme that has to be implemented in a country has three main components: design, implementation, and evaluation or assessment. It is a prerequisite that there must be institutions able to carry out the three functions - separately. The institutional requirements have to include:

4.1.1 Training Institutions

These are the basic institutions which a country must have or has access to in other countries. They basically deal with the preparation of future technocrats in this case in the areas of economic management (to design, implement and monitor SAPs) and in environmental expertise (formulate policies based on environmental impact assessment). Tertiary training institutions play a greater role in this.

Training institutions are the core in each country as they provide expertise in many complementary fields (law, engineering, natural sciences etc.) which may be of assistance in order for SAPs and environmental policy instruments to work. Improvements in human education play a critical role in achieving economic development and protecting the environment. (World Resources Institute, (1992: 31.)

4.1.2 Policy-making Institutions

Policy making is a delicate exercise in the absence of information. In order for policy makers to be able to incorporate environmental concerns into economic decision making the information system should be near perfect. The rules and regulations have to be known. Policy institutions must be manned with staff able to understand, formulate, implement and monitor programmes. The staff must be well equipped with knowledge that enables them to choose the correct policy instruments (type and magnitude). Thus in SAPs this involves complex models while in environmental issues this demands, in addition to models an interdisciplinary approach.

Policy institutions in Tanzania include the Planning Commission, the Sectoral Ministries, the Bank of Tanzania etc. What is most required of these institutions is the ability to actively participate in any negotiations with the Betton Woods institutions and bilateral donors.

4.1.3 Legal Institutions

These are important in helping design and interpret the rules and regulations that surround the implementation of SAPs and environmental policies. In addition, or perhaps most important they help in guarding the rules and regulations set (e.g. command and control rules protecting the environment).

4.1.4 Human Resource Development as a Key to the Success of the Institutions Managing SAPs

It goes without saying that for the institutions described in (a) above to function, optimally knowledgeable staff is a prerequisite—able to master (not just understand) issues of SAPs, sustainable development, and environmental concerns.

This calls for adequate investment in education, especially tertiary education and a staff structure that is more dynamic, flexible and trainable. The discipline of economics is changing very fast.

4.2 What Next for Tanzania?

From the literature that is available it would seem that Tanzania has already done much to the extent that its duty now is to consolidate these achievements. True, this is what SAPs would strive to safeguard. However, genuine answers to many questions might suggest the opposite: that Tanzania needs to rethink her strategies. There are common terms such as training, enhancing public awareness, coordination of environmental issues, to mention only a few. The practice and the way environmental problems are, Tanzania will need to do a number of things including reviewing environmental policies, school curricula, methods and approaches of intervention programmes, content and methods of in-service and out of school education, and the whole question of priority.

On environmental concerns it might be prudent to review policies so that they are practical and congruent with the local conditions such that they do not conflict with the interest of the people. A gradual transformation and sensitization is needed. In other words, policies should be friendly and sensible to the people. They may delay the national goals for some time but will certainly ensure success with time. Schneider (1993:50) summarises it by saying:

> ... it is virtually impossible to successfully protect any area without the support of the local people. Environmental education should therefore be aimed at building support for conservation of these areas.

On the school curricula, efforts should be made to incorporate environmental issues into the school curricula at all levels and ensure there are proper teacher

training programmes to handle the new curriculum. All levels of education—be it formal, non-formal and informal –should specifically address the environmental problems. In-service training may be necessary, and should be encouraged for those who have left school.

Furthermore, the content, methods and approaches of intervention programmes should be in line with the cultural values, with a goal to transforming the community gradually. To be able to underscore these strategies, the government should make it clear as to where the question of environment is in its priorities. Ad hoc campaigns have failed to work despite massive expenditures that have gone into environmental concerns, and NGOs.

4.3 Policy Implications

The role played by education in any economy is great. Countries like Japan which invested in human resources development are now reaping the fruits of their investment. Education by its very nature is a long term investment. Short term perceptions should therefore not be used to gauge the costs and benefits of education. The world is changing very fast. A country catches up with a knowledgeable population and how its technocrats are close to the frontiers of knowledge in the relevant fields.

The skills required to manage SAPs and integrate sustainable development and environmental policies in Tanzania are inadequate. Even the country's Environmental Action Plan does not suggest radical steps towards achieving this.

In view of the above then we recommend that:

(a) the government should rethink its role in the education process and revisit its priorities. Education is a long term investment and it is the government that should have the long term vision of not compromising on human capital development even in the era of SAPs. Many countries are implementing SAPs with appreciable investments in education.

(b) there is need to revisit the school curricular and programmes at all levels to be able to incorporate environmental issues, SAPs and sustainable development issues.

(c) A multi-disciplinary approach to environmental issues be adopted by all interested parties especially researchers.

It is through actions like these that Tanzania can build, enhance and sustain the capacity (human and institutional) of being able to manage SAPs and integrate aspects of environmental policy and sustainable development.

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