CHAPTER V. Applying the Enhanced MDG Strategy in Tanzania

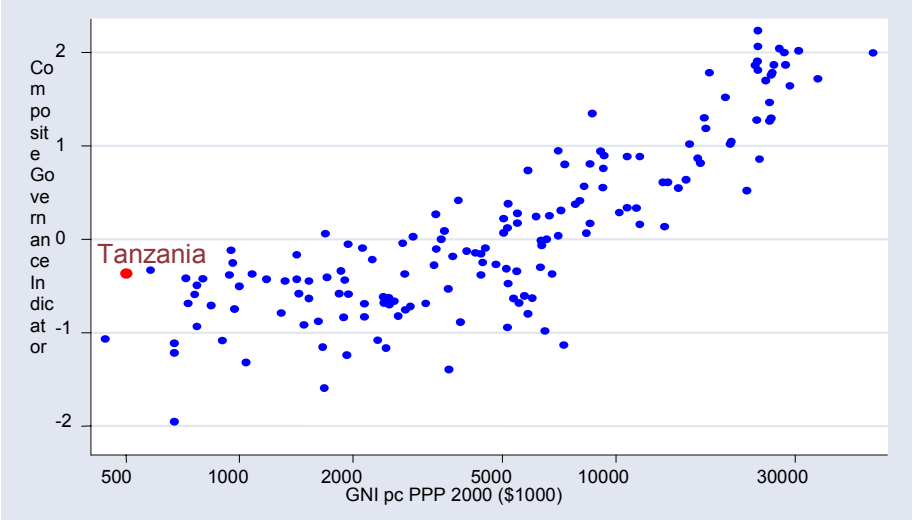
The previous chapters of this report have put forward an analytical framework for understanding why poverty traps occur, a policy framework for multi-sectoral investment strategies to escape such traps, and an operational framework through which countries can plan to achieve the MDGs with the coherent support of the international system. This chapter applies these concepts schematically to a country, Tanzania, with particular emphasis on understanding the multiple dimensions of Tanzania's poverty and the broad public investment approach needed for Tanzania to achieve the MDGs.

To stress, this chapter presents only a sketch of how Tanzania might undertake an MDG needs assessment and plan for achieving the MDGs. A full MDG needs assessment and plan could only be conducted by the government with participation of all stakeholders and support from the UN Country Team. In fact, Tanzania is in the process of revising its PRSP during the 2004 calendar year, thus providing an excellent opportunity for a detailed assessment of Tanzania's needed investments and policy plans to achieve the MDGs.

1. Tanzania's current MDG situation.

Tanzania is one of the poorest countries in the world, suffering from extremely high levels of income poverty and basic needs poverty. Nonetheless, its level of governance is above average relative to its per capita income, as shown in Figure V.1 below, making it an important case study among low-income countries struggling to achieve the MDGs. In addition to the extreme levels of poverty, progress towards the Goals was limited during the 1990s, as summarized in Table V.1.[25] These conditions of extreme poverty and slow progress led Tanzania to be identified as an MDG "top priority" country in the 2003 *Human Development Report*.

Figure V.1: GNI per capita versus Composite Governance Indicator[26]



Source: World Bank (2003c), Kaufmann et al. (2003)

[25] All indicators from the World Bank unless otherwise indicated.

[26] Composite governance indicator defined as the mean of indicators on control of corruption, government effectiveness, quality of institutions, regulatory quality, and rule of law (Source: based on data from Kaufmann et al. (2003)).

Table V.1: Status of MDG indicators in Tanzania

Indicator	Starting year value (1990)	Ending year value (2000)	Linearly projected 2015 value	MDG target value	Status
Proportion below poverty line	39% (1992)	36%	30%	20%	Off Track
Prevalence underweight children	30%	25%	18%	15%	Off Track
Primary net enrollment	51%	88% (2003)	100%	100%	On Track
Literacy of 15-24 year olds	75% (1985)	82%			
Ratio female enrollment primary	.82	0.95 (2003)	1.00	1.00	On Track
Ratio female enrollment secondary	.62	0.84 (2003)	1.00	1.00	On Track
Maternal mortality (per 100,000)	530 (1996)	-	-	133	
Under five mortality rate (per 1,000)	141 (1992)	147 (1999)	161	47	Off Track
Infant mortality rate (per 1,000)	92 (1992)	99 (1999)			
% with access to improved water (urban)	83%	86%	91%	92%	Off Track
% with access to improved water (rural)	45%	48%	53%	73%	Off Track
% with access to improved sanitation (urban)	53%	53%	53%	77%	Off Track
% with access to improved sanitation (rural)	46%	41%	34%	73%	Off Track

A. Poverty and Population Growth

Income poverty in Tanzania is severe. The country has one of world's lowest per capita national incomes, currently estimated at $257.[27] During the 1990s, economic growth was virtually non-existent, averaging 0.1 percent on an annual per capita basis (World Bank 2003c). Closely related, the incidence of extreme poverty is widespread in Tanzania. The absolute number of people below the national basic needs poverty line[28] increased from 9.5 million in 1991/92 to 11.4 million in 2001/2002.[29] Over the same period the number of people below the food poverty line rose from 5.4 million to 6.0 million (URT 1993, 2003a). While the absolutes number of extreme poor increased, the increase occurred amidst significant population growth, so there was a slight reduction in the proportion of basic needs poor, from 39 percent to 36 percent.[30] Regarding the spread of gains over the period, the Tanzania Household Budget Survey statistics show a slight increase in inequality over the same period, with a Gini coefficient increasing from 0.34 to 0.37 (URT 1993, 2003a). While the majority of the poor continue to live in rural areas, where 39 percent of the population falls below the basic needs poverty line, urban poverty is of growing concern as the urban population continues to grow (URT 1993, 2003a).

[27] World Bank 2003c.
[28] The food poverty line is defined as the minimum income required to afford a basic basket of food consumption..
[29] URT 2003a.
[30] Household Budget Surveys 2000/01

The demographic transition in the country has barely begun with fertility rates still at 5.3 children per woman in 2000, down only slightly from 6.3 in 1990 and 6.8 in 1960 (World Bank 2003c). This is roughly equivalent to the average fertility rate for Sub-Saharan Africa of 5.2, but much higher than the average of all low-income countries (3.6). As a result, over 45 percent of Tanzania's population is below 15 years of age – a share that has barely declined from a peak of 48 percent in 1980.

In response to the falling fertility rate and increased mortality rates due to HIV/AIDS, population growth in Tanzania has decelerated to 2.2 percent in 2000 from 3.2 percent in 1990 (World Bank 2003c) with much of this growth now taking place in urban areas. Overall, the country's population is expected to increase from 34 million today to 46 million in 2015 (UN 2002a).

B. Hunger

Hunger, malnutrition and lack of food security are all serious problems in Tanzania. Average per capita food consumption is merely 1,940 kcal per day, compared to a world average of 2,808 kcal per day. It is estimated that 25 percent of all children under the age of five suffer from malnourishment and are underweight. In addition, no progress has been made in reducing malnutrition during the 1990s since the proportion of severely underweight children has *increased* slightly on the mainland from 28.8 percent in 1991/92 to 29.4 percent in 2000.[31]

Severe and prolonged malnutrition leads to widespread stunting. In 1996, 43 percent of the children under five were found to be stunted (low height for age) and 18 percent were severely stunted (PRSP). In addition, large proportions of Tanzania's population suffer from malnourishment resulting from inadequate intake of nutrients. Especially, vitamin and mineral deficiencies are widespread, particularly among young infants and adolescent girls and women.

Clearly linked to this severe hunger situation is falling capita food production in Tanzania, which reached a peak in the late 1970s and has declined by 32 percent since then (FAO 2003a). In comparison, average per capita food production has also fallen in Sub-Saharan Africa as a whole, but only by 11 percent. In Tanzania, declining soil nutrient quality and very low rates of mechanization and animal traction have rendered agricultural productivity stagnant at 1.2 tons per hectare over the past decade.

The majority of Tanzania's small-scale farmers rely on rain-fed agriculture with only 3.3 percent of total cropland under irrigation (FAO 2003a. As a result, annual agricultural output is highly variable with an average variation from the mean of over 9 percent during 1992-2001, compared to a world average variation of only 3.5 percent (FAO 2003a). Given the low levels of food production, this high variability leads to severe periodical food shortages in parts of the country.

As further discussed below, Tanzania's rural transport infrastructure is poor, and most small-scale farmers are disconnected from regional and national markets. This makes it harder for them to gain access to cheap agricultural inputs and the urban markets for their produce. Poor access to farming inputs is reflected in the application of only 5kg of fertilizers per hectare cropland, compared to a world average of 94kg.

C. Education

Primary school enrollment in Tanzania increased significantly during the 1990s to a net enrollment rate of 88 percent, and the country is on track for achieving the corresponding MDG.

[31] World Bank 2003c.

In addition, dropout rates have come down to 6 percent. However, the primary school system suffers from poor quality. Repetition in primary school is high and pass rates for the primary learning exams have been reported to be as low as 20 percent (UNDP 2002a). Moreover, transition rates to secondary schools remain extremely low (UNDP 2002a), especially for girls, and the country's secondary school enrolment rates are among the lowest in the world.

These problems in the area of education are exacerbated by the growing impact of the HIV/AIDS pandemic coupled with limited resources to treat infected teachers and to replace the dying ones. Furthermore, the high levels of poverty prevent households from meeting school fees and other related costs that act as a major deterrent towards further increasing and maintaining primary school enrolment rates.

D. Gender

Overall, Tanzania has made good progress towards achieving gender equality as measured by the MDG indicators. Gender parity in primary school enrolment has largely been achieved, even though girls continue to suffer from much higher drop-out rates than boys – especially at the secondary school level. The major challenges today include improving girls' performance relative to boys' in primary school exams and increasing public awareness of socio-cultural practices that discriminate against girls and women. Violence against women remains a significant problem that requires urgent action by the government and civil society.

E. Mortality and life expectancy

Life expectancy in Tanzania is low at 44 years, having *decreased* by 6 years between 1990 and 2000, primarily due to the HIV/AIDS pandemic (World Bank 2003c). Maternal mortality rates are extremely high, measured at 530 per 100,000 live births in 1996 (URT 1997). Since then national statistics offices have stopped tracking this critical indicator, so no trend data are available. The main drivers of maternal mortality include unsafe abortions, eclampsia, hemorrhage, anemia, and obstructed labor. Without dramatically increasing access to emergency obstetric care and reproductive health services, it will be difficult to bring down high maternal mortality rates. This picture of deteriorating health outcomes is further compounded by child mortality rates that have *increased* from 141 per 1,000 live births in 1992 to 147 in 2000 (URT 2000c).

F. HIV/AIDS, malaria, TB, and other infectious diseases

It is estimated that over 10 percent (URT 2002c) of the adult population in Tanzania is infected with HIV/AIDS. The gender dimension of HIV/AIDS also is significant, with women now accounting for the majority of the infected population. At present, AIDS is the leading killer disease in the age group 15-59 years. It accounts for as much as 35.5 percent and 44.5 percent of male and female deaths in that age group in Dar es Salaam (URT 2002b). The active labor force is estimated to be 9 percent smaller today than it would have been in the absence of AIDS.

The situation regarding malaria remains equally severe. Virtually all of Tanzania is an endemic malaria area. According to the government, the annual incidence ranges from 400-500 cases per 1,000, accounting for approximately 30 percent of the country's total disease burden and 17 percent of all deaths (URT 2003g). The number of clinical malaria cases per year is estimated to lie between 14 and 18 million with a mortality rate that ranges from 140 to 650 per 100,000 people, depending on geographical location (URT 2003c). The country's predominant malaria vector is *anopheles gambiae*, which is notoriously difficult to contain, and more than 95 percent of reported malaria cases are *plasmodium falciparum*, the most lethal form of the parasite.

According to WHO 2001 data, Tanzania is one of the 22 countries with the highest TB burden. Approximately 124,000 cases of TB occur each year in Tanzania, which is equivalent to an incidence rate of 344 per 100,000. With the growing HIV/AIDS pandemic, TB incidence has risen by over 100 percent over the past 15 years. In addition to the three major infectious diseases, respiratory tract infection and diarrhea contribute to high morbidity and mortality. Epidemics like cholera appear regularly in Tanzania.

G. Environmental degradation and ecosystem stress

Some 60 percent of the land area is classified as dryland, which is particularly vulnerable to environmental change and threatened by desertification (URT 2001). Poverty and environmental degradation have entered into a vicious spiral in many rural parts of the country, where rapid land degradation intensifies poverty, which in turn accelerates land use change and ensuing desertification.

One important driver of desertification is deforestation. It is estimated that approximately 91,000 hectares of forest were destroyed between 1990 and 2000 through unplanned forest clearance for agriculture, forest fires, rising demand for fuelwood and charcoal, and other non-sustainable forest resource uses (FAO 2001).

Freshwater ecosystems, particularly Lake Victoria and Lake Tanganyika, are heavily degraded. For example, eutrophication of Lake Victoria and overfishing of Lake Tanganyika have decreased fish stocks and, at least in Lake Tanganyika, have contributed to rises in schistosomiasis. Coastal erosion presents an additional environmental concern.

Tanzania's vulnerability to droughts is high and has been rising over the past years. According to the OFDA/CRED International Disaster Database, approximately 1.3 million people were affected by drought in 2000. These problems are likely to aggravate with climate change caused by anthropogenic emissions of greenhouse gases, which will worsen food security in East and Southern Africa. Potential crop yields are expected to fall with even minimal increases in temperature, because such crops are near their maximum temperature tolerance. In addition, Tanzania's dryland/rainfed agriculture is particularly vulnerable to increased precipitation variability projected to occur as a result of long-term climate change (IPCC 2001). In addition to worsening food security, climate change is also likely increase the geographical spread of endemic malaria and other vector-borne diseases.

H. Water and sanitation

Preliminary estimates recently calculated by WHO and UNICEF suggest that progress towards meeting the water and sanitation goals in Tanzania has been slower than previously thought. Between 1990 and 2002 access to improved water supply increased only slightly from 83 percent to 86 percent in urban areas and from 45 to 49 percent in rural areas. This pace of progress is insufficient for meeting MDG Target 10 on access to water supply by 2015. The proportion of people with access to improved sanitation in urban areas is estimated to have *stagnated* at 53 percent between 1990 and 2002, while the proportion has actually *declined* in rural areas from 46 percent to 40 percent of the population.

Importantly, Tanzania as a whole does not suffer from serious water stress since it only withdraws 1.6 percent of its annual renewable water resources (FAO 2003b). Hence per capita freshwater availability does not appear to be a major constraint in expanding access to improved water supply. Instead additional investments in infrastructure, behavior change programs and maintenance and operation will be required to reach the Goals.

I. Slum population

While the incidence of poverty in cities is lower than in rural areas, urban poverty and rapid slum formation are of growing concern. Tanzania has one of the highest shares of slum dwellers in the world, with more than 90 percent of the urban population, or roughly 12 million people, living in slum-like conditions (UN-Habitat 2003).[32] This ratio is significantly above the average for Sub-Saharan Africa, which lies at roughly 72 percent. The country's relatively low rate of urbanization of 33 percent is projected to rise sharply through urban population growth of close to 5 percent per year (UN 2002a). Hence the number of slum dwellers is likely to increase dramatically unless corrective action is undertaken.

J. Infrastructure and energy

The country's road network is small and in very poor condition. It requires urgent upgrading and extension. The total density of paved roads is estimated at 0.11 km per 1000 people, compared to an average of 0.40 for low-income countries (World Bank 2003c). Across the country 67 percent of the road network is in either fair or poor condition (URT 2000a). The absence of a well-functioning road transportation network makes it impossible for food surpluses generated in some regions to be transported to food-insufficient regions at acceptable cost, thus fuelling hunger and malnutrition in remote parts of the country. Tanzania's information and communication infrastructure is also very limited with only 5 telephone mainlines per 1000 people, compared to the low-income country average of 27 (World Bank 2003c).

As this report has outlined, improved access to energy services is crucial for achieving the MDGs, even though there is no official MDG on energy. In Tanzania, access to improved sources of energy remains low. Biomass-based fuels (especially charcoal and firewood) account for over 90 percent of the country's energy sources (URT 2002a). Commercial energy sources, such as petroleum and electricity, make up only 8 and 1.2 percent, respectively, of the primary energy used. As a result, indoor air pollution is a serious problem in Tanzania, contributing significantly to the high levels of child and maternal mortality. Electricity consumption in the country stands at 55.6 kWh per capita and trails behind the average for low-income countries (352.5 kWh) (URT 2002a, World Bank 2003c). In addition to intensifying non-income poverty, the poor access to energy services in Tanzania constitutes a major constraint on the development of the private sector.

[32] We are very grateful to UN-HABITAT for providing country-level estimates of the number of slum dwellers. Regional aggregates of these estimates have been published in UN-Habitat (2003).

2. Current Policy Responses

A. Alignment of National Policies with the MDGs:
Tanzania developed its Poverty Reduction Strategy Paper in 2000 after qualifying for the Heavily Indebted Poor Countries (HIPC) Initiative debt relief program in the late 1990s. The PRSP outlines a short-term strategy, which is set in the context of, and seeks to operationalize, Vision 2025[33] and the National Poverty Eradication Strategy (NPES) [34]. Since the PRSP was drafted in 2000, it does not explicitly refer to the Millennium Development Goals. It is currently being reviewed and will be aligned more closely with the MDGs.

The PRSP identifies 3 major objectives: (i) reducing income poverty, (ii) improving human capabilities, survival and social well being, and (iii) containing extreme vulnerability among the poor (URT 2000B).[35] It also identifies 6 priority areas: Agriculture, Primary Education, Rural Roads, Water and Sanitation, the Legal and Judicial System, and Health. The 2002 Progress Report of the PRSP further adds private investments in agriculture and expanding secondary education to this list (2003g). Several cross-cutting challenges are also identified in the PRSP, including HIV/AIDS, environmental degradation, gender inequality, and governance.

The MDGs have been built into the PRSP Progress Reports and several of the Sector specific Plans since 2000. Table V.3 below compares the Tanzanian PRSP goals to the MDGs, with the more ambitious targets shaded in gray. Interestingly, many of the PRSP objectives are equivalent to or more ambitious then the MDGs. However, important gaps remain for which the PRSP currently sets lower targets or no targets at all, as in the case of HIV/AIDS, and the environment.

B. Current Resource Mobilization:
While the level of ambition in setting the PRSP targets is largely consistent with the MDGs, there is a clear acknowledgement within the PRSP and subsequent core Tanzanian planning documents that domestic resource mobilization is insufficient to meet those Targets.

The government continues to implement polices that can enhance domestic resource mobilization and to give priority to funding poverty reduction programs. In fiscal year 2001/02, domestic resources reached $1.2 billion, which is about 70 percent of the minimum requirements of the priority sectors as identified in the Medium Term Expenditure Framework (MTEF), which stood at 1.7 billion. In the medium term, priority sector requirements are projected to be much higher, as sector development programs become operationalized. **Table V.2** shows the budget framework for the years 2001/02-2004/05.

[33] Vision 2025 is a long-term development strategy that defines the overall level of development the country wants to achieve by the year 2025 for the Mainland Tanzania. Its major goals are to have high quality of livelihood, peace, stability and unity, good governance, educated and learning society and competitive economy capable of producing sustainable growth and shared benefits by the year 2025.
[34] This is a medium-term strategy, which sets a wide range of more specific poverty reduction targets. Its overall objective is to reduce abject poverty by 50 per cent by 2010 and eliminate abject poverty completely by 2025.

Table V.2: Budget Framework, 2001/02-2004/05 (million 2001 US$) (URT 2003f)

	2001/02	2002/03	2003/04	2004/05
	Actual	**Budget**	**Projection**	**Projection**
Total Resources	1,857	2,533	2,524	2,642
Domestic revenue	1,191	1,338	1,479	1,661
Budget support loans and grants	247	330	350	367
Project loans and grants	336	713	606	515
HIPC relief (ADB, IMF, WB)	69	91	89	99

i. Agriculture: The Agriculture Sector Development Plan (ASDS 2001) and the Rural Development Strategy (RDS 2001) focus on strengthening the institutional framework, creating a favorable environment for commercial activities, clarifying public and private roles in improving services, strengthening marketing efficiency for inputs and outputs, and mainstreaming planning for agricultural development in other sectors. The Government has budgeted $73.4 million in 2002/03 – 90 percent of which is financed through donors. Additional donor support of $19.1 million has also been budgeted for 2003. This translates into total public spending of approximately $2.0 per capita.

ii. Primary Education: The 5-year Primary Education Development Plan (PEDP 2001) forms the basis of the national planning process around primary education. The main policy areas include abolition of school fees, hiring and training of additional teachers, construction of classrooms, and a focus on increasing retention of students and overall quality of education. In 2001, the actual public expenditure on primary education was $133.1 million. This is equal to approximately $3.7 per capita.

iii. Health: The government has drafted and is in the process of implementing the Health Sector Reform (HSR) program. The main focus is on increasing coverage of immunization programs for infants, and developing and implementing plans to limit the spread of HIV/AIDS. Total budget allocations are estimated at $114.2 million in 2003, or approximately $3.2 per capita.

iv. Rural Roads: Between 2002-2005, the Tanzanian government has budgeted $1.03 billion to construct and upgrade 67,892km of rural roads. Current budget allocations cover $819.9 million, leaving a resource gap of $143.9 million by 2005.

v. Water: The government aims at increasing the sustainable access to safe, clean and adequate water in rural, urban and peri-urban areas, developing sewerage facilities in urban areas, implementing integrated water resource management, and protecting water sources from pollution. Total budget allocations to meet the water and sanitation targets are estimated at $36.1 million in 2001, which is equivalent to approximately $1.0 per capita.

C. PRGF/PRSC Arrangements:

The new IMF Poverty Reduction and Growth Facility (PRGF) for 2003-06 supports the Tanzania government's three-pronged strategy of mobilizing revenues to improve domestic saving and reduce aid dependence, liberalize trade, and remove key impediments to growth (IMF 2003b). The key macroeconomic objectives supported under the PRGF include the improvement of tax policy and administration, financial sector reform, improvement of the investment environment and governance.

Table V. 3: Comparison of Tanzania's PRSP Goals to the MDGs[36]

MDG	MDG Target	Tanzania's PRSP Goal
1. Eradicate extreme poverty and hunger	a.Reduce by half the proportion of people living on less than a dollar a day	a. Reduce proportion of population below the poverty line by half from 35.7% in 2000/01 to 17.8%by 2010
	b. Reduce by half the proportion of people who suffer from hunger	b. Reduce the proportion of food poor by half from 18.7% in 2000/01 to 9.3% by 2010 c. Reduce the prevalence of stunting from 43.4% in 1999 to 20% by 2010 d. Reduce the prevalence of wasting from 7.2% in 1999 to 2% by 2010
2. Achieve Universal Primary Education	a. Ensure that all boys and girls complete a full course of primary schooling	a. Increase primary net enrolment from 85% in 2002 to 90% by 2005 b. Reduce illiteracy by 100% by 2010
3. Promote gender equality and empower women	a. Achieve gender equality in primary, secondary and tertiary education, preferably by 2005 and no later than 2015.	a. Achieve gender equality in primary and secondary education by 2005
4. Reduce Child Mortality	a. Reduce by two-thirds, between 1990 and 2015, the under-five mortality rate	a. Reduce infant mortality from 99 per 1000 in 1997 to 50 per 1000 by 2010 and 20 per 1000 by 2025
5. Improve Maternal Health	a. Reduce by three-quarters, between 1990 and 2015, the maternal mortality ratio	a. Reduce maternal mortality by half from 529 per 100,000 in 1994 to 265 per 100,000 by 2010 b. Increase births attended by a skilled health worker from 36% in 1999 to 80% by 2010
6. Combat HIV/AIDS, malaria, and other diseases	a. Have halted by 2015 and begun to reverse the spread of HIV/AIDS	***No clear target***
	b. Have halted by 2015 and begun to reverse the incidence of malaria and other major diseases	a. Decrease the rate of malaria in-patient fatality rate from 12.8% in 1999 to 8% in 2010.
7. Ensure Environmental Sustainability	a. Integrate the principles of sustainable development into country policies and program and reverse the loss of environmental resources	***No clear target***
	b. Halve, by 2015, the proportion of people without sustainable access to safe drinking water	a. Increase the provision of clean water access in rural areas from 48.5% in 2000 to 85% of the population by 2010
	c. Have achieved, by 2020, a significant improvement in the lives of at least 100 million slum dwellers	***No clear target***

[36] The targets are based on the revised PRSP targets in the PRSP Progress Report 2001-02.

The document states that

> The government reaffirms its commitment to reducing poverty and reaching the Millennium Development Goals (MDGs). The authorities are integrating these objectives into the PRSP process, including the ongoing public expenditure reviews and MTEF. The
>
> PRSP Progress Report recognizes that to reduce aid dependency and enhance priority sector outlays, efforts at mobilizing revenue will have to be reinforced. It furthermore notes the importance of improving the business climate. The new PRGF-supported program supports these goals and the authorities' efforts to consolidate macroeconomic stabilization. (IMF 2003b).

In May 2003, the International Development Association (IDA) approved a US$132 million Poverty Reduction Support Credit (PRSC) to focus on private sector development and public sector management. Conditionality under this credit is linked to progress in the implementation of the PRS, institutional reforms, debt, and financial management.

D. ODA levels and Trends:
In 2001, total ODA commitments to Tanzania reached over $1,440 million. It is difficult to allocate specific aid flows to specific MDGs and to identify which aid flows are contributing to MDG achievement and which ones are not. The OECD Development Assistance Committee (DAC) has, however, developed a methodology to allocate ODA commitments to individual MDGs[37]. In applying that methodology, we estimate that roughly 60 percent of these ODA commitments were devoted to areas directly related to the MDGs.

3. Basic strategy for achieving the MDGs in Tanzania

To achieve the MDGs, Tanzania needs to exit the poverty trap and develop the conditions for sustained market-based economic growth. Doing so will require major public investments, strengthened respect for human rights, and improved governance to achieve simultaneous progress across the six policy clusters put forward in Chapter 4. The logic of the proposed MDG strategy is one of public investments since the poor cannot pay fully for the required services and infrastructure. In addition, many of the investments exhibit positive externalities and do not generate any immediate financial return over acceptably short period, which make it impossible to rely on private financing for the bulk of the required investments.

The MDG strategy presented here differs markedly from the approach advocated in the PRGF and the PRSC, which focuses on reducing aid dependence. Given the depth of income and non-income poverty and human deprivation in Tanzania, the country will not be able to achieve the MDGs without substantial and sustained increases in ODA, which, of course, need to be complemented and accompanied by good governance in terms of human rights, economic policies, and well-functioning institutions. Below we identify some key elements of an MDG-strategy for Tanzania.

[37] We thank Brian Hammond of the OECD DAC for sharing this methodology with us. David Simon conducted this analysis for the Task Force using DAC data for Tanzania.

Policy cluster 1: Increased public investments in human needs
Health outcomes in Tanzania are extremely poor and have been deteriorating during the 1990s as summarized above. It is therefore critical for the country to strengthen its health system with particular emphasis on reducing maternal and child mortality rates, as well as fighting HIV/AIDS, malaria and TB. Currently, public health spending is approximately $4 per capita, which is much less than the minimum $35-40 per capita estimated as necessary by the WHO (WHO 2001).

While much progress has been made in increasing primary school enrolment in Tanzania and literacy rates among the under 25-year old have increased steadily, additional investments are required to increase primary school completion rates – particularly for girls – and to improve the quality of teaching. Critically, secondary education needs to receive increased attention, since Tanzania continues to have one of the lowest rates of secondary school enrolment in the world.

Direct and indirect user fees for primary education and basic healthcare, including treatment of HIV/AIDS, need to be abolished to allow poor people to access these services. The challenge therefore remains to sustain the resources flowing into both sectors, which is necessary to scale up human resources and to improve quality. In particular, resource inflows from donors continue to be unpredictable and exhibit high variation, thus making long-term planning for the necessary scaling up of human resources difficult. A facilitating factor towards rapid increases in the number of teachers may be that Tanzania has significant numbers of unemployed teachers, who could presumably be reintegrated into the education sector relatively easily.

Policy cluster 2: Increased emphasis on human rights for women and other excluded groups, with a special focus on the critical role women play in achieving the MDGs
While the extent of gender discrimination in Tanzania is relatively modest compared to other parts of Sub-Saharan Africa, the country does need to strengthen its focus on promoting gender equality. In particular, girls' primary school completion and transition rates to secondary schools need to be increased through improved incentives for families to send their children to school. Particularly in rural areas this will require the abolition of all direct and indirect costs associated with sending girls to school.

In addition, Tanzania continues to have a very high incidence of violence against women that needs to be addressed through a combination of public awareness campaigns, improved counseling, strengthened regulation, and improved enforcement of existing laws.

Policy cluster 3: Promotion of rural development through small-farm productivity in marginal agricultural lands
The agricultural sector is of critical importance to the Tanzanian economy since the well-being of its large rural population or 80 percent of the workforce depend on it. However, the sector continues to decline with per capita food production at the lowest point since 1979. As a result, the country needs to promote investments in increasing agricultural productivity, including improved irrigation and other forms of water management for agriculture; investments in soil fertility, including increased use of fertilizers; and investments in rural transport infrastructure to connect smallholder farmers to the country's urban centers. While raising agricultural productivity is a necessary condition for reducing hunger in Tanzania, it is of course not sufficient. Increasing food production should therefore be accompanied by programs to improve food access and reduce malnutrition among the poorest and most vulnerable segments of the community.

Policy cluster 4: Promotion of competitive urban business environments
Tanzania relies on agriculture for 85 percent of its export earnings. A diversification of the country's economic base into the manufacturing and service sectors is necessary to create new jobs and to reduce poverty. Although only 16 percent of the population lives within 100km from the coast, Tanzania's long coastline and the potential major port of Dar es Salaam provide a strong foundation for developing an export-oriented manufacturing sector. However, transport, ICT and energy infrastructure are severely underdeveloped and in very poor condition. For the country to be able to sustain positive rates of economic growth, important investments will need to be made in these sectors to repair and extend existing networks.

In addition, the government needs to create a sound investment environment and attract key industries, such as textiles and manufacturing, to invest in the country through special industrial development policies. A critical focus of this policy cluster is on promoting science and technology through investments in tertiary education and research capabilities, coupled with improved science advice to policymakers.

Policy cluster 5: Increased focus on rural environmental management
Based on a broad assessment of the inks between land protection policies and biodiversity preservation, Tanzania needs to strengthen its environmental management in several respects. First, land management practices need to be improved to maintain agricultural productivity, prevent soil erosion and halt desertification. Second, management of freshwater resources needs to be integrated across the different uses in order to avoid water scarcity. Third, management of protected areas needs to be improved to reduce encroaching and provide an incentive for local communities to protect the areas. Fourth, comprehensive management plans need to be developed and implemented to protect critical ecosystems, such as the large freshwater lakes, rivers and coastal regions. Fifth, environmental regulation will need to be strengthened and all sectoral development plans need to undergo environmental impact assessments. Finally, the country needs to develop a long-term adaptation strategy to climate change in order to minimize the adverse impact on agricultural productivity, public health, and biodiversity.

Policy cluster 6: Emphasis on improved urban management
Urban growth rates in Tanzania are expected to remain very high for the foreseeable future. Hence important investments in urban infrastructure and services, combined with improved urban management and planning will be required to maintain and improve living conditions in cities. A successful MDG strategy therefore needs to focus on extending access to roads and transport services, electricity, water and sanitation, treatment of sewage, and telecommunication infrastructure, as well as improved urban services, such as solid waste disposal. Improved urban management is particularly critical for Tanzania to complement Policy Cluster 4, since new income generating opportunities are likely to occur in the manufacturing and service sectors, which tend to be concentrated in urban areas.

4. Social Outlays and Infrastructure Investments Needed to Achieve the MDGs

To implement these six policy clusters, Tanzania, will need to identify the specific investments and policies necessary to achieve the MDGs. Two studies have recently been conducted to estimate the public investments needed to that end, each yielding different results.

One was conducted by the World Bank, which calculated the investments required for the MDGs in 18 countries, including Tanzania, as part of its preparations for its September 2003 Annual Meeting in Dubai. In its case studies, the World Bank focused mainly on identifying the immediate investments that could be made in Tanzania to *accelerate progress towards* the Goals,

rather than the longer-term investments needed to *achieve* the MDGs. This distinction is critical, since it is not clear to which extent the paper assesses specific investments needed through to the 2015 horizon to reach the MDGs. The analysis underlying the country studies is not publicly available, but the final report does include the following section on Tanzania:

> ***Retrospective.*** Following a period of mediocre growth performance in the first half of the 1990s, economic reform led to a recovery of growth in Tanzania during the second half of the 1990s and into the current decade, with average GDP per capita growth of around 3 percent over the past four years. The reforms are credited with placing the country on a sustainable growth path, with less vulnerability to external shocks. Tanzania made progress in poverty reduction, primary school enrollment and access to safe drinking water over the period, but experienced some setbacks in under 5 mortality rates and in halting the spread of HIV/AIDS.
>
> ***Prospective.*** Economic growth per capita in Tanzania is projected to be around 2.5 percent annually, rising to 3.4 percent if the country can reform its institutional and policy environment to the level of India, Brazil or Namibia. If growth is extended sufficiently to rural areas, the outlook for attaining the MDGs is favorable, with the exception of health. However, economic growth in the projected range by itself is unlikely to lead to the achievement of the MDG goals. Specific efforts to reach the service delivery targets will be required, in terms of both increased aid and enhanced absorptive capacity. Additional public sector investment required to reach the MDG targets is estimated at US$350 million annually, though the proportion required in aid depends in large measure on the success of efforts to improve domestic revenue mobilization. With almost half of the FY04 fiscal budget financed by foreign credits and grants, debt sustainability will require enhanced grant financing. Institutional quality needs improvement to raise absorptive capacity, particularly at the local level, where education and pay levels of civil servants are low.
>
> If current funding, policies and institutions are continued, Tanzania will likely achieve MDG targets in primary school completion, halting the spread of HIV/AIDS and forests/environment. However, if additional required funding is made available and policy and institutional reforms are undertaken, Tanzania will likely meet MDG goals with regard to poverty, hunger, gender, and the environment, in addition to primary education but will fall short with respect to maternal and child mortality where the impact of HIV/AIDS on mothers and medical personnel will make the targets difficult to reach. (World Bank 2003b)

This figure of $350 million annually suggests that Tanzania requires approximately $10 per capita in additional annual assistance to make faster progress towards the MDGs. In this first round of analysis, the document provides few details regarding the assumptions and methodology used to calculate this figure. It is also is unclear *how close* Tanzania would get to the MDGs under this resource mobilization scenario. Moreover, it is so far not clear which interventions and targets have been included in the analysis and how investments would be scaled up over time. For example, while the country studies refer to infrastructure as a major constraint towards achieving the Goals, the results do not clarify if transport infrastructure has been included in the needs assessment. In addition, the paper argues that some goals, such as the health goals, may not be met in Tanzania, but at this stage no details are provided on how this conclusion was reached and under which conditions all goals could be achieved.

The study emphasizes "absorptive capacity" constraints on scaling up public investments, but so far does not explain how they have been integrated into the analysis of projected financing needs. While constraints in human resources, management systems and infrastructure can be binding in

the short term, they can be relaxed over the medium term through structured programs and investments. We understand that these questions are being assessed in more detail in the World Bank's follow-up work.

A second study to identify the investments needed to achieve the MDGs in Tanzania was conducted in the latter half of 2003 by the Millennium Project in collaboration with the Economic and Social Research Foundation (ESRF) in Dar es Salaam. In an attempt to develop a rigorous and transparent assessment of the public investments and resources required for Tanzania to achieve the MDGs, this study outlined a detailed set of input and output targets to estimate the infrastructure, human resources and financial resources required to achieve the MDGs.

Some preliminary results from this Millennium Project exercise are summarized in Table V.4, which assumes a linear scaling up of investments over 2005 through 2015. In addition to total resource requirements over the period, the table also projects domestic resource mobilization by estimating possible government and household contributions to meeting the Goals. The difference between domestic resources and total needs yields the external finance required in the form of increased ODA.

It is important to note that this financial framework assumes a significant increase in government expenditures towards the MDGs, with the government increasing MDG budget allocations by 4 percentage points as a share of GDP. It also assumes a simple (but not unreasonable) household spending model, which projects that households with incomes above the national poverty line will contribute to the capital and operating costs in some sectors.

The study estimates that Tanzania will need to spend a total of $74 per capita in 2005, increasing to $110 by 2015, to meet the MDGs. This translates into a total investment need of $44.1 billion between 2005 and 2015, which is equivalent to an average annual per capita need of $95. Of the $95, it is projected that $39 can be financed domestically through household and government contributions while the average external financing need is roughly $57 per capita per year. This compares to current *total* ODA commitments to Tanzania of $1,440 million in 2001, or $41 per capita.

Note, however, that the current ODA figures are not directly comparable with the MDG-based ODA calculations since the latter only cover investments required for achieving the MDGs and therefore form a subset of national budget requirement and the range of activities currently financed through ODA. It should further be noted that the resource requirements reported in Table V.4 do not cover all interventions required for achieving the MDGs in Tanzania. The resource needs for several potentially expensive interventions still need to be quantified, as summarized in the box below.

Table V. 4 Preliminary results of Millennium Project – ESRF MDG needs assessment for Tanzania

Summary of projected financial resources required for meeting the MDGs in Tanzania

	Year 2005		Year 2010		Year 2015		Over the full period 2005-2015			
Total Cost (Sum of A+B+C below)	*Annual total ($m)*	*Per capita ($)*	*Annual total ($m)*	*Per capita ($)*	*Annual total ($m)*	*Per capita ($)*	*Overall total ($m)*	*Average per year ($m)*	*Average per capita ($)*	*Average % GDP*
Hunger	163	4.2	337	8.0	365	8.0	3,341	304	7.2	1.6%
Education	377	9.8	499	11.9	686	14.9	5,575	507	12.1	2.8%
Gender Equality	82	2.1	100	2.4	118	2.6	1,086	99	2.4	0.5%
Health	842	21.9	1,483	35.4	1,999	43.5	16,073	1,461	34.8	7.9%
Environment	tbd.	tbd.	tbd.	tbd.	tbd.	tbd.	tbd.	tbd.	tbd.	tbd.
Water Supply and Sanitation	149	3.9	224	5.3	305	6.6	2,481	225.6	5.4	1.2%
Improving the Lives of Slum Dwellers	tbd.	tbd.	tbd.	tbd.	tbd.	tbd.	tbd.	tbd.	tbd.	tbd.
Science and Technology	tbd.	tbd.	tbd.	tbd.	tbd.	tbd.	tbd.	tbd.	tbd.	tbd.
Energy	488	12.7	606	14.4	708	15.4	6,645	604	14.4	3.3%
Roads	750	19.6	815	19.4	879	19.1	8,960	815	19.4	4.4%
Total	**2,851**	**74.3**	**4,063**	**96.9**	**5,061**	**110.2**	**44,162**	**4,015**	**95.5**	**21.8%**

Summary of projected sources of financing in Tanzania

	Year 2005		Year 2010		Year 2015		Over the full period 2005-2015			
A. Household Contributions	*Annual total ($m)*	*Per capita ($)*	*Annual total ($m)*	*Per capita ($)*	*Annual total ($m)*	*Per capita ($)*	*Overall total ($m)*	*Average per year ($m)*	*Average per capita ($)*	*Average % GDP*
Hunger	-	0.0	-	0.0	-	0.0	-	-	0.0	0.0%
Education	20	0.5	28	0.7	42	0.9	322	29	0.7	0.2%
Gender Equality	-	0.0	-	0.0	-	0.0	-	-	0.0	0.0%
Health	-	0.0	-	0.0	-	0.0	-	-	0.0	0.0%
Environment	tbd.	tbd.	tbd.	tbd.	tbd.	tbd.	tbd.	tbd.	tbd.	tbd.
Water Supply and Sanitation	69	1.8	106	2.5	149	3.2	1,182	107.5	2.6	0.6%
Improving the Lives of Slum Dwellers	tbd.	tbd.	tbd.	tbd.	tbd.	tbd.	tbd.	tbd.	tbd.	tbd.
Science and Technology	tbd.	tbd.	tbd.	tbd.	tbd.	tbd.	tbd.	tbd.	tbd.	tbd.
Energy	161	4.2	217	5.2	268	5.8	2,374	216	5.1	1.2%
Roads	-	0.0	-	0.0	-	0.0	-	-	0.0	0.0%
Total	**250**	**6.5**	**351**	**8.4**	**459**	**10.0**	**3,879**	**353**	**8.4**	**1.9%**

	Year 2005		Year 2010		Year 2015		Over the full period 2005-2015			
B. Domestically Financed Government Expenditures ***	*Annual total ($m)*	*Per capita ($)*	*Annual total ($m)*	*Per capita ($)*	*Annual total ($m)*	*Per capita ($)*	*Overall total ($m)*	*Average per year ($m)*	*Average per capita ($)*	*Average % GDP*
Hunger	42	1.1	101	2.6	139	3.6	1,056	96	2.3	0.5%
Education	98	2.6	150	3.6	262	5.7	1,762	160	3.8	0.9%
Gender Equality	21	0.6	30	0.7	45	1.0	343	31	0.7	0.2%
Health	218	5.7	447	10.7	762	16.6	5,079	462	11.0	2.5%
Environment	tbd.	tbd.	tbd.	tbd.	tbd.	tbd.	tbd.	tbd.	tbd.	tbd.
Water Supply and Sanitation	39	1.0	67	1.6	116	2.5	784	71.3	1.7	0.4%
Improving the Lives of Slum Dwellers	tbd.	tbd.	tbd.	tbd.	tbd.	tbd.	tbd.	tbd.	tbd.	tbd.
Science and Technology	tbd.	tbd.	tbd.	tbd.	tbd.	tbd.	tbd.	tbd.	tbd.	tbd.
Energy	126	3.3	183	4.4	270	5.9	2,100	191	4.5	1.0%
Roads	195	5.1	245	5.9	335	7.3	2,831	257	6.1	1.4%
Total	**739**	**19.3**	**1,224**	**29.2**	**1,930**	**42.0**	**13,955**	**1,269**	**30.2**	**6.9%**

	Year 2005		Year 2010		Year 2015		Over the full period 2005-2015			
C. Required Total External Budget Support	*Annual total ($m)*	*Per capita ($)*	*Annual total ($m)*	*Per capita ($)*	*Annual total ($m)*	*Per capita ($)*	*Overall total ($m)*	*Average per year ($m)*	*Average per capita ($)*	*Average % GDP*
Hunger	120	3.1	235	5.4	226	4.3	2,285	208	4.9	1.1%
Education	260	6.8	321	7.6	382	8.3	3,491	317	7.6	1.7%
Gender Equality	61	1.6	70	1.7	73	1.6	743	68	1.6	0.4%
Health	623	16.3	1,036	24.7	1,237	26.9	10,994	999	23.8	5.4%
Environment	tbd.	tbd.	tbd.	tbd.	tbd.	tbd.	tbd.	tbd.	tbd.	tbd.
Water Supply and Sanitation	42	1.1	50	1.2	40	0.9	515	47	1.1	0.3%
Improving the Lives of Slum Dwellers	tbd.	tbd.	tbd.	tbd.	tbd.	tbd.	tbd.	tbd.	tbd.	tbd.
Science and Technology	tbd.	tbd.	tbd.	tbd.	tbd.	tbd.	tbd.	tbd.	tbd.	tbd.
Energy	200	5.2	207	4.9	170	3.7	2,171	197	4.7	1.1%
Roads	556	14.5	569	13.6	544	11.8	6,128	557	13.3	3.0%
Total	**1,862**	**48.5**	**2,488**	**59.3**	**2,672**	**58.2**	**26,328**	**2,393**	**57.0**	**13.0%**

* I.e. government expenditures on the MDGs, which are financed solely through domestic revenue generation
** On a pro forma basis, expenditures are allocated to budget line items based on their relative share of total costs above

The results in Table V.4 provide some interesting insights for MDG-based policy planning. They suggest, for instance, that approximately one third of Tanzania's total investments are required for achieving the health MDGs. HIV/AIDS and malaria stand out as the two critical diseases that require high levels of investments. Underlying these financing figures is the operational point that, to address its health needs Tanzania will need to dramatically scale up the number of doctors employed in the health system. The study tentatively projects that approximately 14,000 doctors and 60,000 nurses will be required by 2015, up from the current figures of 1,500 and 48,000, respectively.

Important cost factors not included in these resource estimates for Tanzania

- Water storage and transport infrastructure, including large-scale irrigation,
- Interventions for improving the lives of slum dwellers,
- Interventions to ensure environmental sustainability,
- R&D expenditures (except for health) and higher education systems,
- Information and communication technologies,
- Ports and railways,
- Large-scale fuel distribution and storage infrastructure, and
- Disaster response and food aid.

Similarly, meeting the education Goals will require major investments – particularly in secondary education. A focus on secondary education is warranted both to promote completion of primary education and to train the number workers needed to satisfy the projected demand for skilled public and private sector employees as other investments are made to achieve the MDGs. Perhaps surprisingly, however, only relatively low resource needs have been projected for secondary schools, which are driven by the fact that current levels of enrolment and therefore operating costs are extremely low. Since the gradual scaling up of secondary education will take time, total education resource needs are lower than in other countries. Tentative results suggest that the total number of primary and secondary teachers will need to double to roughly 215,000 by 2015.

Another important point highlighted by this Millennium Project study is Tanzania's urgent need for investments in the water and sanitation, where progress has been inadequate during the 1990s. The study projects that approximately 6.4 and 8.6 million people will need to be provided with improved access to water supply and sanitation, respectively, in order to meet the MDGs.

5. Conclusion

While the discussion above clearly provides only a rough overview of Tanzania's current situation and the investments and policies it must pursue in order to achieve the MDGs, it aims to provide an outline of how a real MDG-based planning process might proceed. In practice, such an operational goal-oriented planning process in Tanzania would need to follow a three-stage planning process. First, the government would need to conduct a needs assessment that compares its current situation with MDG targets and identifies the combination of public investments that would enable the country to achieve the MDGs by 2015. This needs assessment will identify the particular obstacles that are preventing faster economic development and greater progress towards poverty reduction, covering each of the six policy clusters outlined above.

Second, the government needs to develop a long-term (10-12 year) policy plan for achieving the MDGs. Policies identified in this stage will need to be developed through domestic consultative processes and will need to build upon the results of the MDG needs assessment to identify the mechanisms for delivering necessary goods and services. In several areas this stage will require Tanzania to align its long-range policy plans much more concretely with the MDGs than is currently the case.

The third step will be for Tanzania to construct its medium term (3-5 year) poverty reduction strategy (PRS) and Poverty Reduction Strategy Paper (PRSP) based on the long term MDG plan.

Both the long-term and short-term plans will then need to be periodically reviewed and revised as the country learns from its scale-up experiences and fine-tunes policies towards the MDGs. To be clear, this approach of working backwards from 2015–based plans does *not* suggest creating new poverty reduction processes. It does imply, however, re-formulating the *content* of current approaches based on MDG horizons and transparent needs assessments.

Next Steps

As noted, many of the ideas here are preliminary and require further refinement. During the course of 2004, the Millennium Project Task Force on Poverty and Economic Development will be refining the ideas contained in this document through the continuation of its analytical work and broad public consultation. Readers are encouraged to send comments to the e-mail address listed on the front of this report. The Task Force's final recommendations will be included in a final Task Force report due for completion in December 2004.