Financing the MDGs: an Analysis of Cameroon, Uganda and Philippines

by Stephen Browne and Martim Maya[1]

The only meaningful measurements of the costs and financing of the MDGs are at the individual country level. A comparison of three developing countries shows the high interdependence of the MDGs. It also reveals that both a middle-income country and one of the least developed can reach the MDGs, the former with improved fiscal management, the latter if it maintains its present high growth and continues to receive ODA at current levels. A second lower-income country, however, will fall far short of the Goals, in large measure because of the ravages of HIV/AIDS. All three countries, though, will need to increase their domestic resource mobilisation and gain greater market access for their exports.

The studies on which this article is based were carried out by national research teams in 2001 to attempt to answer a single critical question for the International Conference on Financing for Development (FfD): *What will it take, in resource terms, to meet the universal human development goals of the Millennium Declaration – the Millennium Development Goals?*

No simple answers emerged. No single price-tag could be attached to meeting each goal in each country, in part because the goals themselves are mutually reinforcing — often in unanticipated ways — in patterns that differ not only from one country to another, but among geographic regions within national frontiers and, within these, across rural/urban divides. Nonetheless, the findings in Cameroon, Uganda and Philippines give some indication of the enormity of the tasks that a wide range of developing countries face in mobilising the substantial resources required.

The Methodology

While various global estimates have been made of the costs of meeting the MDGs, they have relied on standard costings (e.g. minimum expenditures per head) applicable to all countries to arrive at the totals. The studies from which this article derives tackled the question at the level of individual countries, where costs can vary enormously, for a variety of reasons, among them different salary levels and availability of materials. In addition, the studies tried to take into account some critical quality dimensions that the MDG indices do not themselves reflect, such as the size of school classes.

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Another vital dimension of costing and financing concerns the "efficiency" of spending — the extent to which appropriated funds are used as intended and reach the stipulated beneficiaries. These issues of financial management encompass governance questions that are both administrative (e.g. the degree of decentralisation) and "moral" (corruption). Among the different goals, the methodologies of costing vary. Whereas a coverage target such as that selected for education may be costed in a relatively straightforward manner, "outcome" targets require more complex approaches. The causal relationships between certain policy actions and the particular development indicator need to be ascertained. This does not mean capturing and studying the full range of factors that determine a given outcome — important as that is — *but, rather, identifying and costing those policy actions that are known to have the most direct bearings on the outcome within the particular country context.*

Similarly, because the MDGs reinforce each other, progress on one front has positive spill-over effects on other variables. Thus, lower income poverty and increased household income levels facilitate higher school enrolment levels. Better access to clean water reduces the toll of disease, and affects school drop-out rates. For the five country studies, some basic methodological approaches were proposed, but the country teams determined their own variants.

Perhaps the most important aspect of this exercise was the fact that the researchers, working in conjunction with policy-makers in government, were challenged to make a comprehensive determination — perhaps for the first time — of the resources, policies and capacities required to meet the goals, taking local realities fully into account. For the purpose of this study, six MDG targets were selected — on income poverty, primary education, health (encompassing both under-5 mortality and maternal mortality), HIV/AIDS and water. In addition, wherever information was available, the studies attempted to mainstream the crosscutting dimension of gender across the five areas.

Each of the summaries below should be seen as work in progress, which UNDP and its UN partners wish to continue supporting as part of the ongoing global MDG Campaign.

Methodologies for each Goal

Income Poverty

The percentage of the population living below the national poverty line is a function of two key elements: the size of the economy and the distribution of the resources within it. Country teams attempted to estimate the level of growth under different distributional scenarios that would be required to shift the necessary percentage of the population across the national poverty line. Determining the growth rates required to realise the income poverty goal relied in most cases on observed "elasticities", which predict the degree to which income poverty falls for every increment of average income levels.

Education

The selected indicator, net primary enrolment rate (the number of primary school age children enrolled in primary school divided by the population of primary school age children) is held as the best estimator of sector performance towards UPE. By contrast, gross enrolment rate (the number of students enrolled in primary school divided by the population cohort of primary school age children) tends to misrepresent reality — high repetition/retention rates and adult education programmes can yield gross enrolment rates in excess of 100% (as in Uganda). Based on population cohort projections and estimated unit costs, progress towards 100% net enrolment was costed assuming a linear progression. These estimates were augmented by the costs of quality improvements in education, including falls in teacher pupil ratios, class sizes and increasing density of textbooks.

HIV/AIDS

The containment and reversal of the spread of HIV/AIDS is probably the most complex MDG to cost. Despite some success stories, there are still limits to our understanding of what works and what doesn't in the fight against this pandemic. Moreover, HIV/AIDS has long since ceased to be seen as a health problem, but rather as social problem with broad economic ramifications requiring a multi-sectoral response. Consequently, the country studies attempted to reflect the cost of the national plans, usually including the costs of anti-retroviral drug treatments. No attempt was made to quantify the cost of non-intervention that, in the case of some of the countries analysed, would most certainly dwarf the global cost of the full range of MDGs and would compromise and even reverse the performance of all other indicators.

Health

Under-five mortality (number of deaths per 1,000 live births) and maternal mortality (number of deaths per 100,000 live births) are outcome indicators that depend on health sector interventions and other measures that contribute to general health. Estimates were based on the projected costs of such health sector interventions as immunization, family planning, control of infectious diseases, and the required numbers of health facilities and trained personnel.

Access to Safe Drinking Water

By deriving per capita expenditure requirements, estimates were made on the basis of the projected population and effort required to expand access to the target levels.

Prospects

Cameroon

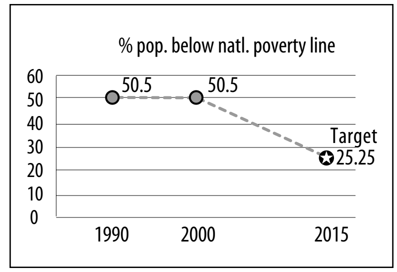
Cameroon is a middle human development country with an HDI above the average for both least developed and Sub-Saharan countries. This West African country has a population of 15 million, half of whom live below the national poverty line, with an annual per capita income of $570. The economy depends largely on agriculture, which accounted for some 44% of GDP in 1999 and provides for the livelihoods of 49% of the population. Industry and services account, respectively, for 19% and 38% of GDP. Oil provides 46% of the country's exports earnings, followed by coffee and cocoa. Given its reliance on three export products and an export to GDP ratio of 31%, the country's economy is particularly exposed to volatility in international commodity markets. Real GDP growth rates over the last four years have risen to the 4%-5% range with continued prospects for accelerated growth in the future.

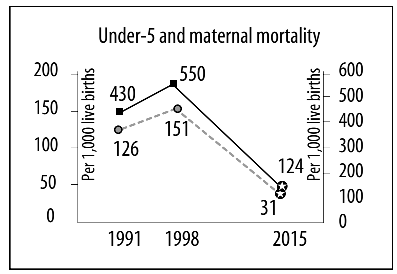
CAMEROON		Year
Population (in millions)	15	2000
Growth (%)	3.0	2000
% urban	49	1999
% below poverty line	50.0	1999
HIV/AIDS prevalence in adult pop. (%)	11	2000
GDP growth (%)	4	2000
Income per capita (current US$)	570	2000
GNP per capita (PPP US$)	1573	1999
Agriculture as % of GDP	44	1999
Industry as % of GDP	19	1999
Services as % of GDP	38	1999
Life expectancy at birth	50.0	1999
Adult literacy rate (%)	74.8	1999
Human Development Index and rank out of 162 countries in 2000	**0.506** (125)	
Sources: national studies, UNDP, WDI		

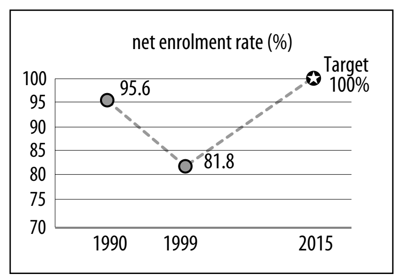
RESOURCES AS % OF GDP	1990	1999
Government spending:		
Education	2.8	1.8
Health	0.9	1.0
Tax revenue	10.8	12.8
Grant aid	4.0	4.7
Foreign direct investment (net)	-0.4	0.4
Exports	20.0	24.0
Debt service	4.7	6.0

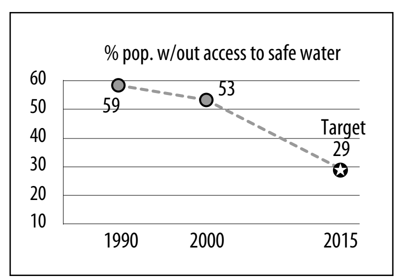
Income Poverty

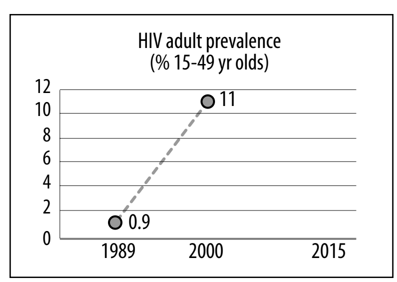
To reach the Millennium Development Goal of halving poverty by the year 2015, Cameroon will need to sustain an average annual GDP growth of the order of 6 to 7%. This is based on prevailing income distribution patterns (an estimated Gini coefficient of around 0.5 to 0.6), and a poverty/income elasticity around unity. In view of recent trends in the Cameroonian economy (almost no gain in per-capita income in the early 1990s, and only 2 points gain during the 1997/2001 period), a sustained growth of 6-7% constitutes a significant challenge to the country as a whole. But recent trends indicate marked improvement, especially in macroeconomic performances, and a renewed commitment from the government, which may allow the country to attain the goal. The accelerated growth performance will require higher volume, as well as improved efficiency of investment. Cameroon's macroeconometric model indicates that, given the prevailing efficiency of capital, a 25% investment rate would be required to support the target growth rate. This, in turn, will require a significant efforts to raise the domestic savings rate and attract foreign investment. To this end, the government will need to rekindle effort to create a favourable investment climate and, more generally, an enabling environment for export and growth led by the private sector. Meanwhile, as the oil sector is fading as an engine of growth, Cameroon faces the challenge of identifying alternative sources of growth that would be more sustainable, distribute income more equitably and thus impact more significantly on poverty reduction.











Basic Social Services

The country faces a major challenge in meeting the MDGs in education, health and water, as indicated in the MDG annual progress report. Additional costs are envisaged as follows:

- **Primary education:** $550 million
- **Health:** $607 million
- **HIV/AIDS:** $77 million (2002-2007)

In the case of education, more than 30,000 new teachers will need to be trained by 2015, an increase of over 70%, and the number of classrooms will need to more than double. A satisfactory strategy on education has been prepared, but implementation has yet to begin. Meanwhile, school tuition for primary schools have been abolished. This will certainly contribute to meet the MDG related to the primary enrolment rate. In the struggle against

HIV/AIDS, the total cost of the national programme is estimated at $77 million over the next five years. The most recent supervision report indicates little forward movement in combating AIDS, notwithstanding some positive developments during the last year. In the case of health care in general, a massive effort will be needed to increase substantially the number of doctors — currently only 750 — nurses and other medical personnel. An increase of 60% is envisaged in the number of health centres.

Resources

A considerable fiscal effort will be required to diversify, steering the economy away from dependence on oil revenues while expanding the overall revenue base. By 2003, the government intends to raise the revenue (tax and non-tax) ratio from 16% to 20% of GNP; this should rise to around 20% over the period up to 2015. Within the overall budget, the total resources of the three corresponding Ministries (Health, Education, Water) will need to increase their respective shares. Taken as a whole, these fell as a proportion of the total budget from 17.7% in 1991/92 to 9.6% in 1997/98, recovering to 13.5% in 2001/02. The government is also seeking to improve the efficiency of public resource utilisation and to increase its delivery of aid projects. In this regard, measures have been taken to improve expenditure management and increase its efficiency and transparency. An anti-corruption "observatory" has recently been set up under the National Governance Programme. However, there are serious implementation delays. Cameroon has been a beneficiary of the expanded HIPC process, annual debt service costs falling from $470 million in 1999 to $177 million in 2001. A Consultative Committee to oversee the use of these funds includes donors and civil society representatives. Disbursements, however, have been slow, reflecting low absorptive capacity.

Debt relief will be the single most important potential source of new funding for meeting the MDGs at least in the immediate future. These debt relief funds are expected to increase steadily in coming years, reaching almost $350 million in 2009, mainly as a result of relief on debt owed to bilateral creditors and to the World Bank. Debt sustainability, measured by the ratio of debt servicing to exports of less than 10% will depend on projected real export growth of 6-8% per year. In recent years, Cameroon has been the recipient of important ODA flows, which account for between 4% and 5% of GDP. Foreign direct investment has been at very modest levels despite the country's rich resources. However, the trend of the ratio FDI/GDP (%) shows a positive evolution from 1995 to 1998

Uganda

This landlocked East African country on the shore of Lake Victoria has a population of 22 million, 35% of whom live below the national poverty line. Per capita income is $310 and overall human development indicators are low. Uganda has substantial natural resources, including fertile soils, regular rainfall, and sizable mineral deposits of copper and cobalt. Agriculture is the most important sector of the economy, accounting for 44% of GDP and employing over 80% of the work force. Coffee is the major export crop, accounting for over half of export earnings. Industry and services make up 18% and 38% of GDP respectively.

Real GDP growth averaged over 7% annual during the past decade, and underlying inflation has averaged some 6%. High rates of growth in a non-inflationary environment are expected to continue. Uganda was the first country to benefit from the HIPC initiative.

Uganda		Year
Population (in millions)	22	2000
Growth (%)	3.0	2000
% urban	14	2000
% below poverty line	35.0	2000
HIV/AIDS prevalence in adult pop. (%)	8	2000
GDP growth (%)	5	2000
Income per capita (current US$)	310	2000
GNP per capita (PPP US$)	1167	1999
Agriculture as % of GDP	44	1999
Industr y as % of GDP	18	1999
Services as % of GDP	38	1999
Life expectancy at bir th	43.2	1999
Adult literacy rate (%)	66.1	1999
Human Development Index and rank out of 162 countries in 2000	**0.435** (141)	

Sources: national studies, UNDP, WDI

Resources as % of GDP	1990	1999
Government spending:		
Education	3.5	2.6
Health	Na	1.9
Tax revenue	NA	NA
Grant aid	15.5	9.2
Foreign direct investment (net)	0.0	3.5
Exports	7.0	11.0
Debt service	3.4	2.9

Income Poverty

The country study assumes growth/poverty elasticities in the range — 1.39 and — 1.67 (1% increase in average income levels results in a more than commensurate decline in income poverty). These will ensure that Uganda stays on target to reduce income poverty significantly if it can maintain the 5-8% average annual growth rates achieved since 1995, and prevent a further aggravation of the inequalities noted above (current Gini coefficient is 0.38). A high growth scenario of 7% and high constant elasticity of –1.67 would bring income poverty rates down to just over 5%, while lower growth (4.5%) and lower elasticity (-1.39) would reduce the rate to 13%. Two fundamental weaknesses that detract from an otherwise optimistic outlook are the high dependence on commodity exports, and in particular coffee — the price of which has fallen precipitously in recent years — and the relatively low levels of revenue generation: 11-12% of GDP in recent years, which obliges the country to remain dependent on substantial external aid. A further destabilising factor is the simmering conflict in the northern part of the country.

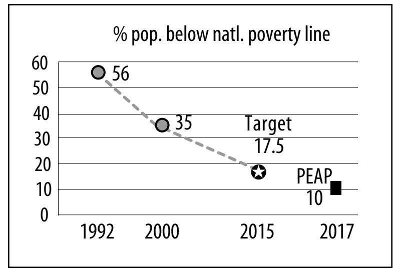
Basic Social Services

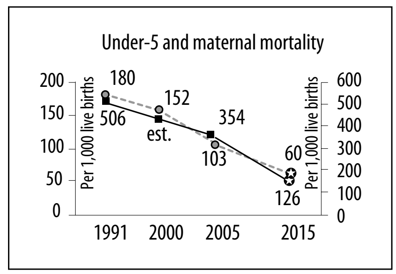
The country study examined the costings of the MDGs using a range of different scenarios. The additional resources required for individual years, shown below, assume a constant population increase (2.9% per year). They are calculated as the difference between the maintenance of current spending levels and the "optimal" spending needed to achieve the goals:

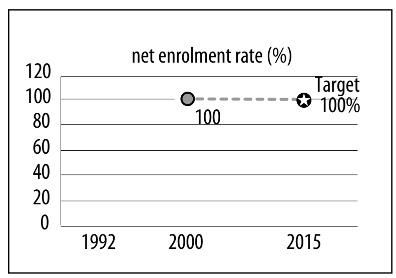
- **Primary education** $161 million in 2002, rising to $233 in 2015
- **Health** $117 million in 2002, rising to $170 million in 2015
- **HIV/AIDS** $127 million in 2002, rising to $184 million in 2015
- **Water** $80 million

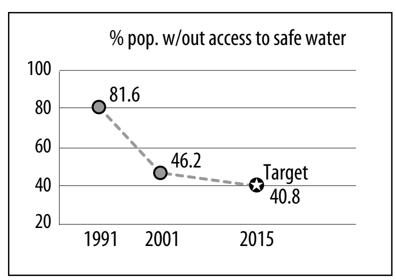
- **TOTAL** $405 million in 2002, rising to $588 million in 2015
- **As % of GNP** 6.6% in 2002, falling to 4.8% in 2015

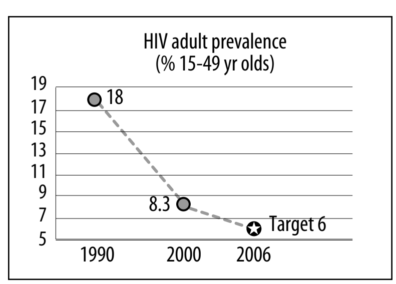
Primary education, a very high priority in Uganda, has benefited from substantial increases in funding, despite continued gender imbalance in favour of boys. Spending has increased three-fold over the past three years and now accounts for 70% of the education budget, which is in turn 30% of total government spending. The government's own resources — which have been put to more effective use through closer parent-teacher surveillance — have been generously supple-











mented by budget support from donors and by the Poverty Action Fund, which is supported by the proceeds of HIPC debt relief. Maintaining current spending levels, however, will still mean a pupil:teacher ratio of 55 and a sharing of textbooks among 6 pupils. Substantial new spending will be required if reasonable quality education is to be universally available and gender gaps addressed.

There has also been an increase in health spending, which now accounts for about 9% of government spending. The additional resource requirements are intended to bring spending per person up to $11. The additional resources for combating HIV/AIDS are derived from the country's National Strategic Framework.

Resources

Uganda has made progress in recent years in marshalling the resources needed to meet the goals. As already noted, a considerable effort is still required to raise levels of tax revenues, and increase the effectiveness of government spending. But a significant resource windfall resulted from debt relief under the HIPC and the cancellation of bilateral official debts. These resources are funding the Poverty Action Fund, which supports a major part of the needs of basic social services Uganda has also benefited from substantial inflows of ODA, which in recent years has topped $600 million, although the amounts have fallen as a proportion of national income. A growing proportion of this aid is channelled into budgetary support. Foreign direct investment has also grown, but remains at quite modest levels. The Uganda Investment Authority is helping to promote the country as an investment destination, but prospects are linked to trade and increased export competitiveness. Uganda would gain from expanded trade opportunities through more access to the richer markets and closer regional integration.

Philippines

The Philippines is a medium human development country with a population of 75.6 million and a per capita income of $1040; approximately one-third of its population lives below the national poverty line. Services make up 53% of its GDP, followed by industry and agriculture with 30% and 17% respectively. Export growth has been strong, particularly in electronics. The ratio of exports to GDP has more than doubled between 1990 and 2000. However, the country's economy has followed a boom-bust cycle with periods of economic growth followed by financial or balance of payments crisis. The last of these, the 1997 East Asian financial crisis, brought GDP growth rates down to 0.6%. Nonetheless, the economy of the Philippines has recovered; GDP growth in 2000 was 4% and is expected to remain in that range.

PHILLIPPINES		Year
Population (in millions)	76	2000
Growth (%)	2.4	2000
% urban	59	2000
% below poverty line	31.8	1997
HIV/AIDS prevalence in adult pop. (%)	0.07	1999
GDP growth (%)	4	2000
Income per capita (current US$)	1040	2000
GNP per capita (PPP US$)	3805	1999
Agriculture as % of GDP	17	2000
Industr y as % of GDP	30	2000
Services as % of GDP	53	2000
Life expectancy at birth	69.0	1999
Adult literacy rate (%)	95.1	1999
Human Development Index and rank out of 162 countries in 2000	**0.749** (70)	

Sources: national studies, UNDP, WDI

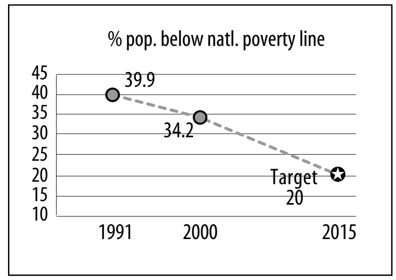
RESOURCES AS % OF GDP	1990	1999
Government spending:		
Education	2.1	3.4
Health	1.5	1.7
Tax revenue	14.1	14.4
Grant aid	2.9	0.9
Foreign direct investment (net)	1.2	0.7
Exports	28.0	51.0
Debt service	8.1	8.8

Income Poverty

The Philippine economy was buffeted by the Asian financial crisis after 1997, which reversed the declining incidence of income poverty. In recent years, the economy has enjoyed real annual growth of 3-4%, which will not be sufficient to achieve the MDG. If stability can be maintained, however, and confidence in the economy returns, the prospects are good for an acceleration in growth — buoyed by rapid expansion in investment and exports — leading to faster reductions in income poverty. The country study has determined that if historical average growth rates of the economy and of population are maintained, the poverty incidence will be reduced by a further 10 percentage points. Growth in the range 4.0 - 6.5%, and a decline in the rate of population increase, would ensure that the poverty rate was halved by 2015.

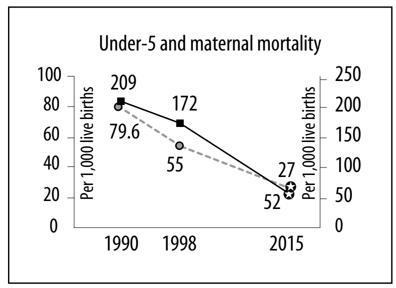
Basic Social Services

The country study has made detailed projections of the annual additional costs of meeting the goals, which are summarised below. Compared with the other countries considered in this report, basic social services have benefited from considerable past investments and the additional resource efforts will mainly be confined to the next few years.

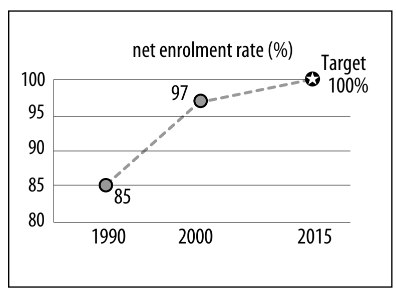


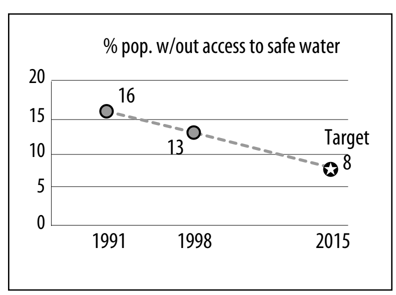
- **Primary education** $464 million in 2002, falling to zero in 2007
- **Health** $131 million in 2002, falling to zero in 2008
- **Water** $22 million in 2002, falling to zero in 2014

- **TOTAL** $617 million in 2002
- **As % of GNP** 0.75 % in 2002



High enrolment rates have already been achieved, and the main policy emphasis will be on raising completion rates above 70% and improving quality. Completion rates will improve as a matter of course as incomes grow, but to enhance educational quality, the number of additional teachers will have to grow by 70% between now and 2015, the number of classrooms by 60% and the stock of textbooks by 130%. The major part of the resources could be found domestically, in part through a reordering of education spending to favour the primary level. Additional cost estimates for meeting the health goals encompass improvements in health facilities, especially at the district level and in rural areas; increased immunisation coverage; control of malaria, tuberculosis and schistosomiasis; and micronutrient supplementation. The needs could be met through the public finances, but there is also scope for





a better use of resources, including through more health promotion measures — as opposed to mainly treatment of sickness — and private sector provision. The resource needs to meet the water goal are relatively modest, but success will depend in part on the necessary priority being given to this sector in the public budget.

Resources

A high priority in meeting the goals in education, health and water supply will be an improvement of the domestic tax effort. Experience in recent years indicates that an improvement is feasible and the priority will be on raising the tax ratio from 14% currently to over 16% in the next five years.

There is also scope for a reallocation of resources, within the budget, in favour of basic social services (e.g. from tertiary to primary education).

Cost savings could also be realised through a more efficient use of resources, including raising the efficiency of service delivery and procurement service reforms. Also envisaged is the increased involvement of the private sector in providing basic social services. For infrastructure needs, the government can have recourse to borrowing. Grant aid still runs at over $500 million per year, but has diminished as a proportion of national income. Overall, the development goals appear achievable by 2015. If the economy can regain its former dynamism, there will be cumulatively favourable consequences, as more people will be able to supplement access to basic services from their own incomes.

Conclusions: What is Needed?

Growth

There will be no substitute for sustained economic growth in order to halve income poverty. Given current income distributions, a significant acceleration will be required in two of the three cases:

- **Cameroon:** 7% compared with 1.7%
- **Uganda:** on track (present rate above 5% requirement)
- **Philippines:** 5-6% compared with 3.2%

Pro-Poor Policies

Such policies, necessary in all five countries, will invariably have to favour rural-based households, especially those headed by women. National strategies will also have to emphasize rural infrastructure, farming terms of trade (i.e. prices received against prices paid), and small, labour-intensive enterprises.

Domestic Resources

All three countries will need to pursue policies to increase domestic savings and tax revenues; in the long run, robust domestic resources will be the basis for sustainable progress in meeting the MDGs. Experience indicates that more efficientmanagement and use of existing resources could have significant benefits.

Exogenous Shocks

All three countries have suffered economic disadvantages as a result of external economic factors that they cannot control. The African economies have experienced large price falls in key export commodities, along with continuing barriers to trade expansion and diversification, while the Philippines was a victim of the Asian financial crisis after 1997. Trade liberalisation and lower import tariffs in the poorer countries detract from their capacity to raise fiscal revenues. Policy consistency by donors implies opening their markets more widely to poorer countries, if aid is not merely to become partial compensation for disadvantageous external conditions.

FDI

All five countries are committed to trying to attract more foreign direct investment, for which a record of sound and consistent economic governance will be essential.

Debt

For the African countries, HIPC relief has provided anti-poverty dividends of varying significance. The longer-term sustainability of the remaining debt will be a preoccupation, particularly with new borrowing and in the face of flaccid export performance.

ODA

If the MDGs are to be met, there will be no alternative to increasing aid — matched by sound economic governance and by concerted efforts by the governments of recipient counties to continue to raise levels of domestic financing.