October 2007

THE MILLENNIUM DEVELOPMENT GOALS How Realistic Are They?

Michiel Keyzer and Lia van Wesenbeeck

In its Millennium Declaration of September 2000, the United Nations (UN) adopted the Millennium Development Goals (MDGs), to be reached in 2015 through concerted efforts worldwide. According to UN calculations, the estimated costs in terms of additional development aid of meeting the MDGs in all countries vary from US\$121 billion in 2006 to \$189 billion in 2015. It appears that while Asia is well on track to achieving the goals, essentially through its own efforts, Africa is lagging behind. But how realistic are these levels of funding? And regarding the goals themselves, are the necessary mechanisms in place to monitor their realization, and do the proposed measures promote sustainable development? These questions are the focus of this brief.

The UN's 2005 MDG report does not focus on replacing all other development efforts. It typically aims to send a can-do message to the developed world that calls not for fundamental change but, rather, for a modest additional financial contribution of US\$48-74 billion annually until 2015. There is undoubted merit in widely circulating the message that the world's most serious problems can be solved at relatively low cost. In this regard, the MDG process has been instrumental in putting development back on the international agenda. Furthermore, agreeing on a list of targets has practical value in helping to keep donors dedicated to a common development agenda, facilitating the coordination of aid among donor countries to promote economies of scale, and providing a welldefined list of regularly monitored targets to encourage public support for development cooperation. Nonetheless, creating hope is one thing; generating unfounded expectations is another. The MDG process asks the public for funds that eventually will have to be repaid in terms of success. Hence, there is a definite need to consolidate the process by focusing on realistic aims that are well cast in an overall development perspective reliable monitoring and, obviously, credible funding assessments.

United Nations Financing Estimates

Various figures have been circulated on the amount of funding needed to achieve the MDGs in 2015: the UN report mentions an additional US\$50 billion annually. While conceding that this estimate is crude at best, the UN report expresses a firm belief that it provides a good indication of the order of magnitude of the funding required. Starting from a "shopping list" of targets, the 2005 UN Millennium Project provides an independent assessment based on costings of target quantities at assumed prices for a handful of countries. The actions identified and costed lead to a funding budget generally rising from US\$77.5 per capita in 2006 to \$140.5 per capita in 2015—half of which is to be obtained from household contributions and domestic government expenditure. The last step in the estimation of total financing requirements is to use the per capita investment needs to compute the total investment required to achieve these goals worldwide, totaling the amounts obtained after multiplication of the average per capita need by the relevant segments of the population in low-income countries. Furthermore, an estimate is presented of the financing needs for middle-income countries and for some actions at the global level. The resulting financing gap to be covered by official development assistance (ODA) amounts to US\$135 billion in 2006, \$152 billion in 2010, and \$195 billion in 2015, which would imply an increase in ODA over existing commitments of US\$48, \$50, and \$74 billion, respectively.

An important element of the costing is the assumption that there is a committed, well-organized public sector. The calculation of total ODA even includes an "adjustment for countries not qualifying due to inadequate governance," by which US\$21-25 billion are deducted from the total requirements to reflect the exclusion of some countries-implying that other countries should contribute more to the attainment. The report suggests that in assessing the quality of governance, a clear distinction can be made between deliberate unwillingness on the part of those in power to act in the best interest of the country, and failures caused by poverty and lack of institutional capacity. Only the first category of countries is excluded; hence, many countries remain, especially in Africa, where improved government reach and quality requires major investments.

What Is Overlooked in the Estimates?

The MDG report expresses its cost assessments in per capita terms and points to the striking similarity of the estimates for the five countries that serve as benchmark cases, suggesting that this warrants generalization to other countries. This section looks at the calculations of MDG investment needs in health, transport infrastructure, and education (close to 60 percent of the total investment needs in the report) primarily to highlight that, although the report mentions most of the possible items, the actual budgeting omits many items and scaleindependent costs and makes optimistic assumptions about the quality of governance. Moreover, the report tends to neglect the upward cost push of upscaling services resulting from intensified use of scarce skills and material resources.

Health

The MDGs on health cover a broad range of topics, such as reducing the under-five mortality rate by two-thirds and the maternal mortality rate by threequarters, and halting and having begun to reverse the spread of HIV/AIDS, malaria, tuberculosis, and other major diseases. The report estimates that per capita investments of US\$13–25 in 2005, \$19–33 in 2010, and \$30–48 in 2015 will be sufficient to achieve these goals. Such statements, however, neglect many minor diseases that together burden a sizable share of the population.

The Center for Global Development ranks a number of successful projects with respect to the eradication of diseases through vaccination campaigns or treatment programs. Treatment of malaria and leprosy-two important diseases in developing countries—are not included in the list. Estimates on the costs of malaria treatment vary from US\$0.1 to \$9 per treatment, depending on the resistance of the disease to cheaper drugs in the area considered. For the treatment of leprosy, estimates of treatment costs per patient vary from US\$20 to \$30. Factoring in the costs of treatment of these diseases, the total annual per capita health cost already equals half the average needs for 2006 and takes up more than a quarter of the estimated average investment need in 2015. In addition, there are also diseases for which no adequate therapy is available at present and for which the costs of therapy and/or vaccination are as yet unknown.

Since the MDGs on health also include a wellfunctioning health system in general, costs of achieving this should also be factored into the total. A further complication in the treatment of many of these illnesses is that treatment should start almost immediately after the disease has been contracted, and often involves extended regular visits to clinics. This requires that health services be located near patients, which is especially costly in view of the dispersed nature of settlements in many parts of Africa. HIV and AIDS obviously require special attention. The latest estimates show that in Africa 25.8 million people were HIV infected in 2005, of which 3.2 million represented new infections in that year, while 2.4 million people were estimated to have died from AIDS that same year. Additional resources are needed for treatment and prevention, including training teachers and strengthening systems of

distribution for preservatives, outreach programs, and training of health care workers to provide advanced treatment. Furthermore, degree training should be included for health personnel. Finally, infrastructure should be expanded to offer a larger percentage of the population access to schools and health facilities. In the case of Thailand, a densely populated country with a well-functioning health care system to start with, the annual costs of addressing AIDS are already almost US\$6 per capita, suggesting that any cost estimate for AIDS treatment and prevention in Africa should be far above this average.

In short, judging by the cost of the items explicitly listed, the shopping list neglects certain diseases, the cost of developing the health delivery system and providing surrounding infrastructure, and more generally the cost of up-scaling present activities to the required levels.

Transport Infrastructure

Poor infrastructure is often mentioned as one of the most important bottlenecks inhibiting growth and development in Africa. While the UN Millennium Project refers to several items, there is no separate entry for investment in telecommunications. For roads, the estimated per capita investment needs are in the range of US\$11–13 in 2006, \$10–21 in 2010, and \$10–31 in 2015 for the cost of maintaining and expanding road networks only. The report does state, however, that "a more comprehensive assessment must factor in the costs of improving access to transport services as well as expanding ports and other transport infrastructure" (pp. 243–244). Suffice it to say, the financial implications of this statement would definitely not be minor.

Furthermore, the construction of physical infrastructure is only one of the many steps needed to arrive at a well-functioning transport system. Assuring security along the roads is at least equally important. The cost of achieving security on transport infrastructure, especially in Africa, is particularly high due to the widespread rural population, low intensity of road traffic, and pressing need to monitor the police force itself. As an admittedly special point of reference, it should be noted that the 2006 UN intervention in Sudan budgeted almost US\$1 billion to help 6.1 million people. Even for transport proper, costs are only to a limited extent proportionate to scale. The World Food Programme (WFP) budget for the 2005–06 food aid operations primarily for the Darfur region shows the cost of providing 730,000 metric tons of food. The current costs of procurement and transport are about US\$163 million (\$27 per capita). Total estimated costs for WFP are 4.5 times as high (\$746 million) and include many items that are independent of the scale of the operations, such as assistance on tertiary roads that are normally considered unsuitable for commercial transport, emergency road repairs and mine clearance, rehabilitation of river assets, emergency upgrading of infrastructure, creation of storage facilities, and expansion of field offices.

Reference to the costs of food aid operations is of special relevance in Africa because of the large number of people who depend on it. On average, during the period 1985-2000, some 30 million people in Sub-Saharan Africa were partly or fully dependent on food aid that, for more than three-quarters, had to be obtained via seaports. Of these, about 5-6 million people are fully dependent on food aid; and of them, 2.5 million—and rising—are living in refugee camps due to the many conflicts, which might eventually strain the MDG resource. Sub-Saharan Africa harbored around 90 refugee camps in 2000 with populations from a few hundred to over 350,000 people. To give an indication of the logistics involved, the average distance of the seven largest camps, with populations of 100,000 or more, to the nearest seaport is 3,300 kilometers by road, and the Sudan operation mentioned earlier is not unique in the scope of activities required to transport food.

The Food and Agriculture Organization of the United Nations (FAO) provides an Africa-wide overview showing the investment needed to upgrade rural infrastructure. The total per capita investment of US\$11–15 annually already covers the lion's share of the estimates made in the UN Millennium Project, and given that the investment reported covers rural infrastructure only in a narrow sense, it is clear that the total costs will be much higher. The inclusion of irrigation schemes, for example, increases the annual per capita costs for 2006, 2010, and 2015 to US\$16, \$25, and \$32, respectively.

Education

The MDG on education is to achieve universal primary education for boys and girls in 2015. The estimated per capita requirements mentioned in the report also include secondary education: "our education estimates build upon the Education for All estimates by also including secondary school education" (p. 243). The estimated annual per capita investments needed to achieve this goal are US\$11-17 in 2005, \$13–19 in 2010, and \$17–25 in 2015. The estimates seem particularly low because achieving universal primary education in many countries requires major up-scaling of the number of teachers. While the United Nations Educational, Scientific and Cultural Organization estimates that about US\$7–8 per capita would be required to pay the salaries of the additional 18 million teachers, the costs of educating these teachers should also be taken into account. Cost calculation for this is not straightforward, as it is clear that the additional demand for education will put more pressure on the already fragile system, but even a low estimate of the cost of training only new teachers results in figures in the range of US\$10 per capita. In addition, expanding the education sector also requires investments in buildings and educational materials.

Measuring Progress

A primary goal in defining the MDGs was to create a list of objectives that could be quantified and then

monitored for progress. Measuring the number of undernourished people is particularly problematic, however: the FAO estimates that approximately 204 million people are undernourished in Sub-Saharan Africa, but comparable estimates using body weight measurements in demographic and health surveys result in a much lower figure of approximately 120 million people. Such discrepancies cast doubt on the accuracy of MDG 1 yardsticks and, consequently, the assessment of subsequent progress.

Conclusion

Setting up clear lists of explicit policy targets such as the MDGs can be effective in providing general background on the magnitude and importance of the task at hand and in mobilizing public support. The cost calculations associated with the MDGs generally convey the message that achieving the goals is a matter of goodwill, and that a relatively minor financial effort over the next 15 years will suffice. If the MDGs are primarily intended to rally taxpayer support for increased development aid, then the accuracy of the cost calculations is of lesser importance. What counts are the achievements realized with the tax money spent.

The Millennium Village initiative of the Millennium Projects seems to focus on this aspect and aims to show that, with good management and adequate investments, African communities throughout the continent can flourish. The underlying idea is that success will breed success-locally because the good practices will be emulated by other villages, and globally because the donor agencies and commercial investors will become less shy once they see positive and tangible results. Small rural villages in this initiative, however, can at best become showrooms of progress; they will often be no more than classic Potemkin villages visited by television crews during special campaigns, as well as by rich individuals in search of a philanthropic project. Moreover, the international community cannot neglect the moral implications of selecting a happy few to receive medical care, education, sanitation, and the like, while leaving the large majority outside the fence.

The shopping-list approach pursued by the Millennium Project carries, among other factors, the danger of omission. In the case of health, it is the omission of a host of nonmajor diseases and the requirement to build a network of skilled staff to monitor medication intake and effects on patients. For transport infrastructure, it is the scaleindependent cost of delivery related to police surveillance and the improvement and maintenance of tertiary roads. For education, it appears that neglecting the teachers needed to teach the teachers and the requirements for construction and adequate maintenance of schools has led to serious cost underestimation. Furthermore, shopping lists treat prices as given, whereas development experience indicates that targeted efforts tend to generate local scarcities of trained personnel and other inputs that trigger price increases. More generally, establishing

adequate government institutions to provide security and justice in addition to health, education, transport, and irrigation facilities involves high levels of scale-independent costs.

In addition, if the targets are actually meant to be reached, rather than functioning as mere symbolic reflections of moral concern and public relations tools, they should be defined in detail, and adequate measurement procedures should be agreed upon to monitor progress in meeting them. Indeed, by making the concepts more clear, and by agreeing on them internationally, the MDG undertaking has made significant steps in this direction, but greater efforts are needed to arrive at reliable indicators.

Finally, it seems remarkable for the UN to define its own agenda for development at a time when Asia (China and India in particular) is teaching the world at an unprecedented scale and pace what development is about. Asia is convincingly demonstrating that growth is indeed the solution to poverty, but equally that an MDG time horizon of 15 years may be too short for results to become visible. Asia also demonstrates that growth starts in urban agglomerations, absorbing labor from the surroundings and gradually spreading via labor migration from less-favored or less-well-governed areas, followed by gradual industrial expansion to these areas. In this process, trade liberalization is important as fuel for growth, but government has its role in keeping up physical and social infrastructure, in providing social safety nets, and in spreading progress across the territory.

All this illustrates the tension between defining separate and simple targets with associated externally funded projects and financing requirements, and the broader idea of development. The MDG approach appeals to a public tired of stories of how the complexity of development makes it difficult, if not impossible, to implement simple policies with clear effects. But the Asian experience also teaches that development is organic: given proper general guidance from government, it finds its own way through the markets without central control of every detail or ideal circumstances in all cases. For Africa, this would suggest identifying potential winners, with South Africa-and, hopefully, Nigeria and its West African neighbors—as a natural candidate. For development cooperation with Africa, this would amount to betting on such winners in terms of trade concessions and industrial development rather than focusing on the least developed countries that lack the capacity to deliver substantial quantities anyway-notwithstanding the need to maintain humanitarian aid flows and to help achieve basic levels of infrastructure in less promising areas. At the same time, it should be recognized that the eventual spatial configuration of African regional partnerships remains unclear. In the meantime, Europe might choose to act as a growth pole, but for this it would have to relax its restrictions on labor migration, which seems unlikely at present. Above all, the Asian experience is relevant to Africa in so far as countries that only 30 years ago were commonly portrayed as the basket cases of the world have almost simultaneously, and despite rising dependence on imported energy and other mineral resources, shown an incredible capacity to reduce poverty and hunger.

For Further Reading: UN Millennium Project, *Investing in Development: A Practical Plan to Achieve the Millennium Development Goals* (New York: United Nations Development Programme, 2005); Center for Global Development, *Overview of Case Studies in Health Care* (http://www.cgdev.org/section/ initiatives/_active/millionssaved/overview>2006); M. A. Clemens, C. J. Kenny, and T. J. Moss, *The Trouble With the MDGs: Confronting Expectations of Aid and Development Success*, CGDEV Working Paper 40 (Washington, DC: Center for Global Development, 2004).

Michiel Keyzer (m.a.keyzer@sow.vu.nl) and **Lia van Wesenbeeck** (c.f.a.vanwesenbeeck@sow.vu.nl) are director and researcher, respectively, with the Centre for World Food Studies, Vrije Universiteit, Amsterdam. This brief is based on the 2006 article "The Millennium Development Goals: How Realistic Are They?" by M.A. Keyzer and C.F.A. van Wesenbeeck, published in *The Economist* 154 (3): 443–466.

Suggested citation: Michiel Keyzer and Lia van Wesenbeeck. 2007. The Millennium Development Goals: How Realistic Are They? 2020 Focus Brief on the World's Poor and Hungry People. Washington, DC: IFPRI.

The views expressed in this brief are those of the author(s) and are not necessarily endorsed by or representative of IFPRI, or of the cosponsoring or supporting organizations.

This brief was prepared for a policy consultation process coordinated by IFPRI and focused on the World's Poor and Hungry People. IFPRI gratefully acknowledges the contributions of: Asian Development Bank (ADB), Bill and Melinda Gates Foundation, Canadian International Development Agency (CIDA), Deutsche Welthungerhilfe (German Agro Action), European Commission, German Federal Ministry for Economic Co-operation and Development, with Deutsche Gesellschaft für Technische Zusammenarbeit (BMZ/GTZ), International Development Research Center (IDRC) Canada, and Irish Aid.



INTERNATIONAL FOOD POLICY RESEARCH INSTITUTE

2033 K Street, NW, Washington, DC 20006-1002 USA **T: +1 202 862 5600 • F: +1 202 467 4439** ifpri@cgiar.org • www.ifpri.org



FOR FOOD, AGRICULTURE, AND THE ENVIRONMENT

Copyright © 2007 International Food Policy Research Institute. All rights reserved. Sections of this material may be reproduced for nonprofit use without written permission but with acknowledgment to IFPRI. For further information: ifpri-copyright@cgiar.org.