

# Preparing National Strategies to Achieve the Millennium Development Goals A Handbook



## About the UN Millennium Project

The UN Millennium Project was commissioned by the UN Secretary-General in 2002 as an independent advisory body charged with putting forward the best strategies for meeting the MDGs. The bulk of its analytical work has been carried out by 10 thematic task forces comprising more than 250 experts from around the world (see annex). In January 2005 the UN Millennium Project presented *Investing in Development: A Practical Plan to Achieve the Millennium Development Goals*, its recommendations for achieving the MDGs, to the UN Secretary-General. This report—and 13 task force reports—are available at [www.unmillenniumproject.org](http://www.unmillenniumproject.org).

UN Millennium Project's central recommendation—also made in the Secretary-General's report *In Larger Freedom: Towards Development, Security, and Human Rights for All*—is for developing countries to adopt national strategies bold enough to meet, or exceed, the MDGs. These MDG-based poverty reduction strategies should serve as the foundation for scaling up public investments, capacity building, domestic resource mobilization, and official development assistance.

As a key part of its work, the UN Millennium Project has supported several developing country governments in their efforts to prepare MDG-based poverty reduction strategies. The lessons learned

# **Preparing National Strategies to Achieve the Millennium Development Goals A Handbook**

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## Foreword

The world has an unprecedented opportunity to improve the lives of billions of people by meeting the Millennium Development Goals (MDGs). For the first time in history, we have the technological, financial, and human resources to tackle extreme poverty around the world. Meeting the MDGs will require some practical steps. Countries need to be empowered to develop and implement monitorable and measurable national strategies to meet the MDG targets for 2015. By scaling up investments in infrastructure and human capital while promoting gender equality and environmental sustainability, countries can make the MDGs a global reality within a decade.

To better understand how countries can design ambitious national strategies to meet the MDGs, the UN Millennium Project has had the privilege to work with several governments that took on this challenge. Governments led the way with support from UN country teams and participation from civil society organizations, development partners, and other key stakeholders. In Africa the UN Millennium Project's MDG Centre in Nairobi has played a critical role in the effort to operationalize the MDGs. In the process, each country charted unknown territory, teaching the world invaluable lessons on how to craft and implement MDG-based national development strategies. As resolved at the 2005 World Summit, the challenge for the coming year will be to replicate and adapt such bold national efforts in countries around the world.

This handbook consolidates the practical lessons from country-level efforts to operationalize the MDGs and draws on two years of research by the UN Millennium Project, which pioneered the needs-based approach to the MDGs. It complements the 13 thematic task force reports and *Investing in Development*, prepared by the UN Millennium Project and presented to UN Secretary-General Kofi Annan in January 2005. The handbook presents a "how to" guide that can be used by governments, UN country teams, and other development professionals in preparing MDG-based national development strategies. I recommend it to all development practitioners and am sure that it will make a major contribution to achieving the MDGs.

Preparation of this handbook would not have been possible without the tireless support of the task force coordinators and members, along with many other superb development professionals both in and outside the UN system. I am also grateful to the members of the UN Millennium Project Secretariat who worked intensively with the task forces over more than two years to map out a practical approach to MDG needs assessments. Their leadership has been invaluable not only in preparing this handbook, but also in linking the broader recommendations of the UN Millennium Project to the ground-level MDG processes in countries and communities around the world.

Jeffrey D. Sachs  
October 2005



Handbook section		Subsection	Purpose of section
		<b>Introduction</b> What is an MDG-based national development strategy? A partnership to achieve the MDGs Frequently asked questions about MDG-based national development strategies	Provides an overview of the MDG-based national development strategy—what it is and how it differs from other approaches
<b>step 1</b>		<b>Launch an effective and inclusive process</b> Guiding principles Organizing the process Assigning responsibility: key actors Setting timelines and deliverables Identifying financial and technical resources for the planning process	Describes how to structure an effective process for preparing an MDG-based national development strategy, including roles of key actors, timelines, and resources required
<b>step 2</b>		<b>Take inventory: reviewing existing strategies and defining the “baseline”</b> Taking stock of existing plans and strategies Defining the baseline MDG status and coverage of interventions Working with primary data	Describes the importance of reviewing existing plans and strategies and of collecting information to establish a baseline and monitor results
<b>step 3</b>		<b>Conduct a needs assessment</b> Before beginning the needs assessment Getting started—parts of in a needs assessment Launching the analysis—sector methodologies and best practices Rural development—increasing food output and rural income Urban development—promoting jobs, upgrading slums, and developing alternatives to new slum formation Health systems—ensuring universal access to essential health services Education—ensuring universal primary education and expanded post-primary and higher education Gender equality—promoting gender equality and empowering women Environment—investing in improved resources management Science, technology, and innovation—building national capacities Infrastructure and integration—supporting cross-national infrastructure, trade integration, and government cooperation Public management—investing in public sector management systems Completing the needs assessment: consolidating investment cluster strategies	Provides guidance on conducting sectoral MDG-based needs assessments and describes how to choose interventions, define targets, estimate resource needs, and check results to ensure that the needs assessment analysis is aligned with achieving the MDGs
<b>step 4</b>		<b>Develop a 10-year framework for action</b> Set priorities and sequence interventions Design effective policies in support of MDG investments Divide responsibilities among key actors	Provides guidance on consolidating the needs assessment analyses into a coherent long-term (10-year) investment framework that charts the country’s path to achieving the MDGs
<b>step 5</b>		<b>Write a three- to five-year national development strategy</b> Develop an MDG financing strategy Create an MDG-consistent medium-term expenditure framework Establish public accountability mechanisms Set up mechanisms for periodic review of development outcomes Making the case—using the MDG-based national development strategy as the basis for a new conversation with development partners	Describes some key considerations when preparing an MDG-based national development strategy, including setting short-term objectives, selecting priority interventions, elaborating a financing strategy, and ensuring accountability and evaluation mechanisms. The MDG-based strategy forms the basis for a compact between governments and their development partners
		<b>Making it real—the MDG compact</b> Monitoring the MDG compact Sample MDG compact	Provides a sample MDG compact that outlines the roles of various actors in implementing the MDG-based national development strategy



Who should read this section		When this section should be read
	Anyone who is not familiar with the MDG-based national development strategy or who wants a broad overview of the process	Before initiating the MDG strategy process, and especially when deciding whether to initiate such a process
	Steering committee, minister of planning or finance (or other official charged with chairing the MDG planning process), UN resident coordinator, thematic working groups, and others contributing to the process	At the outset of the MDG strategy process, once the government has decided to initiate an MDG-based national development strategy
	Line ministers, sector experts, thematic working groups for sectoral needs assessments, and others interested in data collection and poverty mapping issues	Once the steering committee and the thematic working groups are formed and the MDG strategy process is initiated
	Line ministers, sector experts, thematic working groups for sectoral needs assessments, and others interested in technical recommendations for specific sectors	Before initiating the sectoral needs assessments
		
	Minister of planning or finance (and other officials charged with preparing the long-term investment framework), steering committee, UN resident coordinator, line ministers, and others interested in the preparation of the long-term investment framework	At the outset of the MDG strategy process, as this section provides a broader understanding of how the needs assessment analysis will form the basis for the long- and short-term development strategies
		
	Minister of planning or finance (and other officials charged with preparing the MDG-based national development strategy), steering committee, donors and other development partners, UN resident coordinator, line ministers, and others interested in the preparation of the MDG-based strategy	At the outset of the MDG strategy process, as this section provides a broader understanding of how the needs assessment analysis and the long-term investment strategy will form the basis for the MDG-based strategy. It also provides governments and their development partners with a sample compact to guide their collaboration to achieve the MDGs
		
	Senior government decisionmakers, donors and other development partners, civil society, the UN resident coordinator, and others contributing to the process	Before initiating the MDG strategy process, especially when deciding whether to initiate such a process
		

## Reaching the Millennium Development Goals

At the Millennium Summit in September 2000 the largest gathering of world leaders in history adopted the UN Millennium Declaration, committing their nations to a new global partnership to reduce extreme poverty and setting out a series of time-bound targets, all with a deadline of 2015, that have become known as the Millennium Development Goals (MDGs).

The MDGs are the world's time-bound and quantified targets for addressing extreme poverty in its many dimensions—income poverty, hunger, disease, lack of adequate infrastructure and shelter, and exclusion while promoting gender equality, education, and environmental sustainability. The MDGs are also human rights—the rights of each person on the planet to health, education, shelter, and security as pledged in the Universal Declaration of Human Rights and the UN Millennium Declaration (see p. 192 for the list of MDGs).

As the most broadly supported, comprehensive, and specific poverty reduction targets the world has ever established, the MDGs are too important

to fail. If the world achieves the MDGs, more than 500 million people will be lifted out of poverty. A further 250 million will no longer suffer from hunger. Some 30 million children and 2 million mothers who might have reasonably been expected to die will be saved. For the international system the MDGs are the fulcrum for development policy. For the billion-plus people living in extreme poverty they represent the means to a productive life. For everyone on Earth, they are a linchpin in the quest for a more secure and peaceful world.

The MDGs need to be achieved at the country level—not just the regional or global level. And for every country that wants to achieve them, particularly those with basic conditions of stability and good governance, the starting assumption must be that the MDGs are achievable. But countries will achieve the MDGs only if they make them operational—explicitly incorporating their targets and time horizons into key economic policy decisions, national planning documents, and requests for development assistance. Development partners, for their part, must provide the financial and technical support these bold strategies deserve.

## About this handbook

This handbook is a hands-on guide to help developing countries prepare MDG-based national development strategies. It translates the recommendations of the UN Millennium Project and lessons learned through the project's country advisory work into a user-friendly "how-to" format that can assist countries initiating their own MDG-based strategies.

The handbook provides some guiding principles and approaches to manage the complexity of preparing integrated and country-specific strategies for achieving the MDGs. We hope that countries find this general guidance useful and will adjust and adapt it to meet particular circumstances and aims.

The handbook does not advocate new development processes. Instead, it focuses on aligning existing planning instruments and processes, such as the Poverty Reduction Strategy Papers, with the MDGs. What is new is the focus on outcome-oriented national development strategies that are clearly linked to budget processes and are ambitious enough to achieve the MDGs. To ensure alignment with the MDGs, the proposed approach begins with an estimate of the practical investments and resources needed to achieve the MDGs and then translates them into short- and medium-term plans as well as budget frameworks.

Several handbooks and guides exist to support the preparation of MDG-based development strategies. We recommend that this handbook be used alongside other guides, some of which are mentioned below.

Some important characteristics of this handbook:

*Shares lessons learned*—MDG-based national development strategies need to be tailored to local conditions, priorities, and investment needs. Instead of one-size-fits-all solutions, this handbook provides guidance on preparing MDG-based strategies, drawing on the experiences of governments, UN Country Teams, the UN Millennium Project, and the MDG Center.

*Offers hands-on tools and examples*—This handbook provides tools that countries may find useful while preparing MDG-based national development strategies, such as sample checklists, terms of reference, calendars, and budgets. And it provides country examples and answers to frequently asked questions.

*Is part of a broader set of resources*—This handbook should be used in conjunction with other resources, such as needs assessment tools and user guides, presentations, background papers, and other reports of the UN Millennium Project, which are available at [www.unmillenniumproject.org](http://www.unmillenniumproject.org) and included on the accompanying CD-ROM. More broadly, this handbook is part of the UN Millennium Project's larger effort to assist countries in preparing MDG-based national development strategies. Along with the United Nations Development Programme and other organizations, the UN Millennium Project will continue to work directly with governments, hold training workshops, and provide other materials and support.

*Is evolving*—As more countries undertake MDG-based national development strategies, experiences with this process will grow and deepen. We hope that countries will share their experiences, ideas,

and suggestions with us by going to the Project's website: [www.unmillenniumproject.org](http://www.unmillenniumproject.org). Based on incoming suggestions and experiences, the web version of this handbook will be regularly updated.

## See also

United Nations. 2005. *In Larger Freedom: Towards Development, Security, and Human Rights for All*. Report of the Secretary-General to the General Assembly. 21 March. New York.

The United Nations Development Programme has also developed (and is further developing) training materials on the MDGs for countries:

United Nations Development Programme. 2004. *The Blue Book: A Hands-On Approach to Advocating for the Millennium Development Goals*. New York.

United Nations Development Programme. Forthcoming. *How-to Guide for MDG-based National Development Strategies*. Bureau for Development Policy. New York.

The World Bank website (<http://www.worldbank.org/p/sreview>) provides detailed guidance for PRSP countries preparing national development strategies, complemented by papers on country experiences in preparing such strategies. Also available on this site are links to World Bank and IMF annual progress reports that provide further useful insights into preparing these documents.

The World Bank also publishes a “sourcebook” to help development planners:

World Bank. 2002. *A Sourcebook for Poverty Reduction Strategies*. Washington, D.C.

## Who is this handbook for?

This handbook has been written primarily for:

- *National governments*, including professional staff in ministries of planning and finance, as well as those in line ministries that are responsible for the day-to-day work of preparing the MDG-based national development strategy.
- *UN country teams*, which are critical partners in supporting the government process and in lending technical support for the needs assessments.
- *Civil society organizations*, including academic
- thematic working groups and ensure that the needs of underrepresented groups are incorporated in the MDG-based national development strategy.
- *Private sector representatives* who have extensive experience in their areas of activity and can contribute much to the relevant thematic working groups of the MDG planning process.
- *Development partners* who can contribute their technical expertise to the planning process and fund the scaling-up of services to meet the

## What is not covered in this handbook?

This handbook does not do the following:

- Give a history of the MDGs.
- Explain the importance of preparing an MDG-based national development strategy, as laid out in *Investing in Development*. It starts with the assumption that anyone picking up this handbook already understands this and now wants suggestions on how to begin.
- Provide evidence of the effectiveness of interventions. For a partial description of this evidence, please see the final reports of the UN Millennium Project as well as the background paper for the needs assessment methodology (available at [www.unmillenniumproject.org](http://www.unmillenniumproject.org)).
- Provide detailed guidance on using the UN Millennium Project's needs assessment tools. Instead, the handbook gives an overview of the UN Millennium Project needs assessment approach and the tools (quantitative models) for calculating resource needs. Separate documentation available on the UN Millennium Project's website explains how to use the needs assessment tools.

### See also

UN Millennium Project. 2005. *Investing in Development: A Practical Plan to Achieve the Millennium Development Goals*. London: Earthscan. [[www.unmillenniumproject.org](http://www.unmillenniumproject.org)].

UN Millennium Project. 2004. "Millennium Development Goals Needs Assessments for Ghana, Tanzania, and Uganda." Background paper to Jeffrey D. Sachs, John W. McArthur, Guido Schmidt-Traub, Margaret Kruk, Chandrika Bahadur, Michael Faye, and Gordon McCord. 2004, "Ending Africa's Poverty Trap." Brookings Paper on Economic Activity 1: 117–216. [[www.unmillenniumproject.org](http://www.unmillenniumproject.org)].

# Introduction

## Summary

To achieve, or exceed, the Millennium Development Goals, the UN Millennium Project's central recommendation—adopted by all 191 member states of the United Nations at the 2005 World Summit—is that countries should prepare and implement ambitious goal-based strategies anchored in the 2015 targets and time horizon. Development partners need to match their efforts with adequate increases in financial and technical support as well as improved market access for trade.

This handbook aims to help developing countries prepare strategies to achieve the MDGs, using the following five-step approach:

- Step 1 Launch an effective and inclusive process
- Step 2 Take inventory—review existing strategies and establish a baseline
- Step 3 Conduct a needs assessment
- Step 4 Develop a 10-year framework for action
- Step 5 Write a three- to five-year MDG-based national development strategy

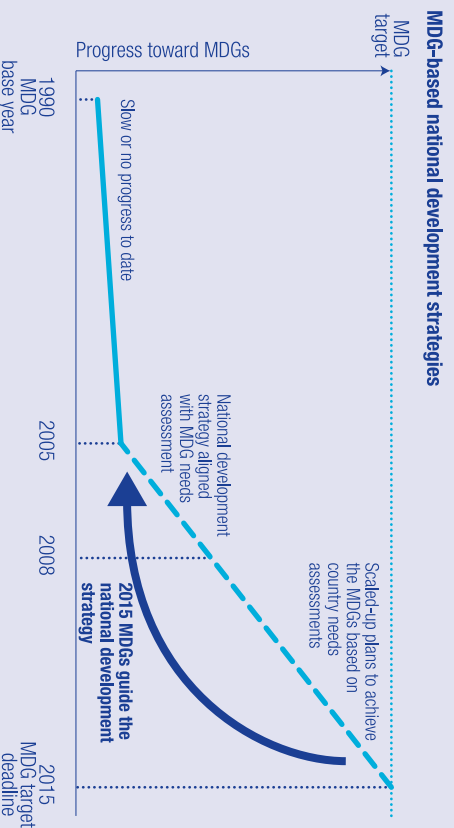
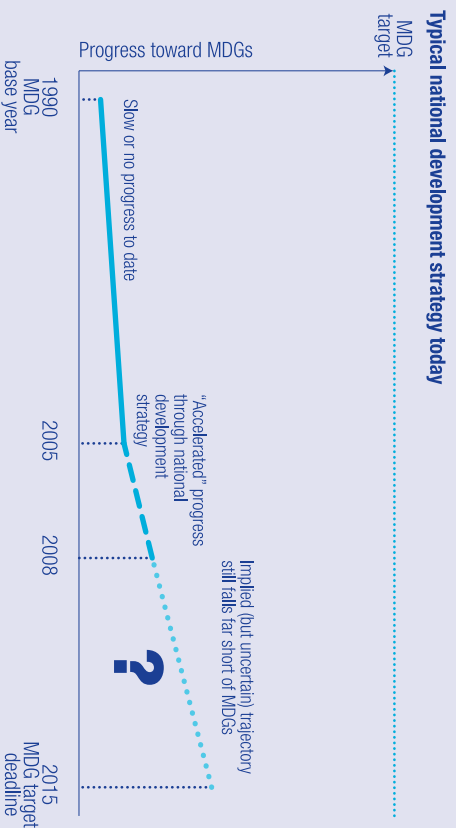
This introduction briefly outlines these five steps and discusses the core features of an MDG-based national development strategy. It then describes the roles of developing and developed countries in this partnership to achieve the MDGs. At the end of this section, we answer frequently asked questions about MDG-based national development strategies.



## What is an MDG-based national development strategy?

An MDG-based national development strategy is any ambitious goal-based national strategy that aims to achieve, or exceed, the Millennium Development Goals (MDGs). As resolved in the 2005 World Summit Outcome Document (Article 22a), all countries should adopt such bold national strategies by the end of 2006, and their efforts should be supported by development partners.

### An MDG-based national development strategy



Achieving the Millennium Development Goals within their timelines requires a shift in development practice from planning for modest incremental expansion of social services and infrastructure to bold and long-term strategies aimed at achieving the quantitative targets and goals. Instead of strategies to “accelerate progress toward the MDGs,” strategies are needed to “achieve the MDGs” (see figure).

To this end, we propose an MDG-based approach to preparing a national development strategy that aims to answer “What will it take to achieve the MDGs?” in five steps:

- Step 1 Launch an effective and inclusive process.** Launch a nationally owned and led preparation of an MDG-based strategy, with high-level political commitment and support from the UN country team and such other actors as civil society, the private sector, and development partners. In countries where such processes exist, they should be integrated, transparent, and regularly reviewed.
- Step 2 Take inventory—review existing strategies and establish a baseline.** Review past and current planning documents, and assess the key dimensions of extreme poverty and basic social service gaps in the country—by region, ethnicity, gender, and age—as best as possible with available data. In many countries such reviews have already been conducted, and they should be drawn on extensively.
- Step 3 Conduct a needs assessment.** Quantify the specific public investments across multiple sectors to meet the MDGs—in infrastructure

- **Step 4 Develop a 10-year framework for action.** Based on this needs assessment, formulate a long-term and coherent strategy that charts a country's path toward achieving the MDGs.
- **Step 5 Write a three- to five-year MDG-based national development strategy.** Based on the 10-year framework for action, prepare the national development strategy as a more detailed, operational document, linked to a medium-term expenditure framework and to monitoring and accountability mechanisms.

This is not a new development process; it is a systematic way to align current processes with the MDGs. For example, countries that use Poverty Reduction Strategy Papers (PRSPs) in their planning and discussions with development partners should be supported to ensure that these reflect a path for reaching, or exceeding, the MDGs. For countries not involved in the PRSP process, national and sectoral medium-term plans should be aligned with the MDGs.

As countries work toward a long-term strategy to meet the MDGs by 2015, the planning process can help identify rapid impact actions to create momentum. For example, the MDG needs assessments discussed in Step 3 can reveal highly effective actions that do not require large investments in infrastructure or highly trained human resources. The UN Millennium Project has identified some of these “Quick Impact Initiatives,” to which countries can refer as they decide on their own immediate areas of focus (see Step 4 for a list). For example, as one UN country team colleague in Africa commented on the importance of Quick Impact Initiatives:

Discussions with government officials and other colleagues often reveal frustration with endless and abstract planning processes that may keep us all occupied but where it is hard to see impacts on the ground. This is just one reason why the emphasis on the nuts and bolts of achieving the MDGs is so important.... Countries should be encouraged to immediately review [the Quick Impact Initiatives] to see which apply to them, what additional ones exist and take appropriate measures.

## Core features of an MDG-based national development strategy

The key principle of MDG-based planning is that it works backward from the MDG targets to define the policies and investments needed between 2005 and 2015. This differs from the prevailing practice, which is to formulate investment strategies independent of needs after the macroeconomic framework, official development assistance, and overall budgetary ceilings have been set. For many developing countries, particularly low-income countries, this

start with an assessment of the actual MDG investment needs—followed by the design of a supportive macroeconomic framework, including a viable financing strategy that includes more development assistance, as necessary.

Here are six core features of an MDG-based national development strategy:

1. *Oriented to outcomes.* To effectively chart the

strategies need to be oriented to achieving specific MDG outcomes.

2. *Based on bottom-up needs assessments.* Strategies should be anchored in rigorous estimates of country needs—in human resources, financial resources, and infrastructure—for achieving the MDGs. They should set targets, based on local needs, conditions, and investment priorities. Needs assessments allow countries to link estimates with specific concrete investments that can form the basis of national budgets. This needs assessment is very different from other MDG costing approaches that attempt to estimate inputs required for the MDGs using macroeconomic growth models and other statistical techniques (see annex, pp. 198–99).

3. *Implemented at scale.* An MDG strategy identifies a full set of interventions for implementation at a scale required to achieve the MDGs. In most cases, this means that it aims for most or all of the population to have access to the basic goods and services needed to reach the MDGs.

4. *Broad-based and integrated.* No “silver bullet” exists for reducing poverty. For example, water and sanitation services, hygiene education, and prompt and effective medical care are, together, required to reduce child deaths from diarrhea. Conversely, many interventions have an effect on multiple MDGs. Better education, for example, reduces income poverty, hunger, gender inequality, and child mortality. Countries therefore need integrated, multisectoral strategies to meet each of the MDGs.

5. *Long term.* To reach the MDGs, an MDG strategy needs to plan for significant long-term investments, such as training professionals and building infrastructure. A 10-year MDG-based strategy allows countries to address important capacity constraints that are often taken as a given in shorter-term strategies.

6. *Linked to national budgets.* An MDG-based national development strategy should form the basis of national budgets and expenditure frameworks, allowing countries to set budgets through a careful assessment of the level of inputs needed to achieve the MDGs.

## A partnership to achieve the MDGs

To move from preparing an MDG-based national development strategy to its implementation, these strategies need to be accompanied by a formal agreement, or compact, between governments and their development partners (see Making it real—the MDG compact). The compact elaborates their shared intent to achieve the MDGs and delineate specific responsibilities for implementing the MDG-based national

### The role of low- and middle-income countries in achieving the MDGs

National governments are responsible for their own development—and for ensuring that development strategies are bold enough to achieve the MDGs. Therefore, each developing country with extreme poverty—including middle-income countries with pockets of poverty—should be empowered to adopt and implement a national

achieve the MDGs. The strategy should, like the MDGs themselves, be embedded in a human rights framework (see box) and explicitly include interventions to address gender equality.

MDG-based strategies also need to be tailored to local conditions, priorities, and investment needs. In middle-income countries that are on track to achieve the MDGs at the national level and that often have adequate domestic financing capability, the UN Millennium Project recommends targeted strategies to ensure that investments reach pockets of poverty and areas of policy neglect. Countries can also adopt “MDG-plus” strategies with more ambitious national targets.

Regional, cross-border cooperation is frequently needed to reach the MDGs—building cross-country infrastructure, managing transboundary ecosystems, or strengthening economic and political cooperation. Such regional efforts need to be included in the MDG-based planning

documents and linked to regional organizations such as NEPAD and CARICOM, which are critical for the success of such cooperative efforts.

### **The role of development partners in achieving the MDGs**

Bilateral donors, UN agencies, regional development banks, and the Bretton Woods institutions should give all the support needed to implement these MDG-based national development strategies. For countries with good governance and detailed strategies, development partners need to provide adequate and coordinated official development assistance to meet the technical and financing needs (for a full discussion see UN Millennium Project 2005h). Other essential support includes achieving fairer and more open markets for trade in developed countries, supporting debt relief, mobilizing global science and technology, curbing climate change, and fighting environmental degradation.



## **Issue**

### **Human rights and the Millennium Development Goals**

The Millennium Development Goals are human rights—the rights of each person on the planet to health, education, infrastructure, shelter, and security as pledged in the Universal Declaration of Human Rights and the UN Millennium Declaration. Thus, strategies to achieve the MDGs should reflect human rights principles, as outlined, for example, in the Convention on the Rights of the Child and the Convention on the Elimination of All Forms of Discrimination against Women.

MDG-based national development strategies must be consistent with the principles of equality and nondiscrimination in international human rights instruments. For example, a strategy to achieve the education MDG needs to go beyond ensuring universal literacy and primary education. It should include mechanisms that enable people to participate fully in public decisions about education and ensure that the education MDG is achieved equitably within the country.

Appropriate legal frameworks could also be included in the strategy to ensure that implementation is in line with human rights principles.

## Frequently asked questions about MDG-based national development strategies

Here are some answers to frequently asked questions on MDG-based national development strategies, pulled together as a convenient reference for readers.

### **1. Why should a country carry out an MDG needs assessment if the resources to implement it are not available?**

World leaders have agreed to support all developing countries in achieving the MDGs. Importantly, at the March 2002 International Conference on Financing for Development in Monterrey, Mexico, they also established a landmark framework for global development partnership. At this conference leaders agreed, among other things, that all developed countries should make “concrete efforts toward the target of 0.7 percent of gross national product as ODA [official development assistance] to developing countries.”

It is important to view MDG-based national development strategies in the context of global development assistance commitments. As of mid-2005, 16 donor countries had either achieved the 0.7 percent official development assistance target or announced a timeline for doing so by 2015. Indeed, official development assistance is scheduled to increase by over \$40 billion annually by 2010. This rise in development assistance is premised on the understanding that public investments in the poorest countries need to be scaled up to meet the MDGs. These donor commitments should encourage all countries to answer the question, “What will it take to achieve the MDGs?” by carrying out an MDG needs

While a needs assessment provides no guarantee that adequate resources will be forthcoming, national development strategies based on a rigorous needs assessment can form the basis for honest discussions with development partners about the level of financial support required to meet the MDGs. Where perceptions of needs differ, transparent assessments can help by providing a clear framework that lays out assumed interventions, coverage targets, and associated resource needs. Policymakers and development partners can thereby compare which interventions need to be included in an MDG-consistent strategy. For example, do health-systems estimates include AIDS drugs if HIV prevalence is high? Are necessary recurrent costs included and are doctors’ salaries adjusted to stem brain drain? In its country-level work the UN Millennium Project has found that such transparent comparisons of assumptions can generate a consensus between governments, development partners, and civil society on what is needed to achieve the MDGs.

### **2. Why do the needs assessments recommend large aid resources for developing countries when most have limited capacity to absorb more funds?**

Limited capacity can be a real constraint to scaling up investments in the short term. It is, however, important to carefully analyze where such capacity constraints exist and how they can be removed over time. It is important to clearly distinguish capacity constraints from financial constraints. Countries are not always constrained by limited capacity in scaling up public investments. For



countries from dropping user fees for health and education or switching to a new line of more expensive antimalarial drugs. Needs assessments can help identify the areas where the prevailing bottlenecks are purely financial.

Capacity constraints, such as limited infrastructure, human resources, managerial skills, and monitoring and evaluation systems, can constrain a country's ability to scale up investments. But each of these constraints can be substantially relaxed over the medium term through systematic investments in infrastructure, human resources, management systems, and administrative capacity. Through MDG needs assessments, countries can systematically think through the questions of which constraints exist and what investments are needed to overcome them.

For example, many countries will need to train, hire, and retain large numbers of teachers, nurses, doctors, agricultural extension officers, infrastructure specialists, and scientists—experts often in very short supply. Planning investments in higher education, preservice training, and inservice training can substantially increase a country's ability to fill these necessary positions. In most countries professionals also need to receive substantially higher salaries to raise their families and have an incentive to stay in the public sector and the country. Better pay is necessary in today's globalizing world where international markets for doctors, nurses, engineers, and other professionals push up salaries. A needs assessment can quantify the increased public expenditures needed to retain qualified staff in the public sector. It can also be used to estimate how many staff will need to be trained in the coming years to meet the MDGs.

Note that macroeconomists frequently use the

describe the amount of external financing a country can absorb without jeopardizing macroeconomic stability. As described under Step 5, most economists agree that if countries receive enough debt relief and if official development assistance increases are predictable and provided as grants, external funding to achieve the MDGs can be increased without threatening macroeconomic stability.

### **3. Why does this handbook focus on one approach to MDG needs assessments when many different methodologies are available?**

Different approaches to costing address different questions (see the annex, pp. 198–99). It is therefore critical to decide which question to answer before choosing an analytical approach.

The approach outlined in this handbook can answer, “what interventions are needed to achieve the MDGs, and what are the associated resource needs in terms of financing, infrastructure, and trained personnel?” Other approaches answer complementary questions, such as, “what growth rate is required to halve poverty?” Such a question, while important, does not give policymakers specific guidance on how to program resources required to achieve the MDGs.

Separate from the question of approach is the question on what quantitative tools can help policymakers estimate resource needs. In some instances, users can choose among many analytical models. These models answer the same set of questions but may differ in their technical sophistication and usability. For example, needs assessment models developed separately by academia and the Joint United Nations Programme on HIV/AIDS are available to estimate the practical investments required for

several of the UN Millennium Project's needs assessment tools build on models developed by other UN agencies.

*See annex for matrix comparing each of the methodologies (pp. 198–99), and the Q&A on pages 49–50 in Step 3 for a brief discussion.*

#### **4. Why does the needs assessment not include a separate costing of MDG Target 1 on halving income poverty?**

All the MDGs are ends in themselves, but they are also “capital inputs” to economic growth and to further development—and thus, to achieving the poverty target. A healthier and better educated worker is also a more productive worker. Similarly, improved water and sanitation infrastructure raises output per capita. And increasing agricultural outputs will also reduce poverty and increase economic growth in countries where agriculture is a significant contributor to GNP, as in most of Sub-Saharan Africa. So, achieving the poverty target requires public investments in people (health and education), infrastructure, and environmental management that enable poor people to participate in markets and join the global economy. These investments are quantified by the needs assessment, which therefore does not require a separate costing of the poverty target.

We emphasize that public investments are necessary but not sufficient to halve poverty. They need to be complemented by good institutions and sound policies, such as upholding the rule of law, promoting human rights, pursuing sound economic programs, managing public administration, and supporting civil society organizations. These policies and institutional

*See Investing in Development (UN Millennium Project 2005b) for a detailed discussion of these issues.*

#### **5. What explains the focus on public investments when the private sector can deliver services more efficiently and is the engine of growth and poverty reduction?**

Poverty reduction needs private-sector-led growth. However, the private sector requires public investments to be able to operate competitively. It can function efficiently only if workers are educated and healthy, and if companies have access to cheap transport, reliable electricity, water supply, and other infrastructure. And experience around the world has shown that these investments are public goods that need to be publicly provided in poor countries. In other words, the public investments in the MDGs are a prerequisite for sustaining growth of the domestic private sector and for attracting more foreign direct investment.

Moreover, the private sector cannot supply essential social services and infrastructure to poor people, because poor people cannot afford to pay for them. Once public financing is available, it is possible to contract private companies to deliver services or provide the infrastructure in the form of public-private partnerships. Such private delivery of public investments is not always more efficient and needs to be carefully assessed on a case-by-case basis.

#### **6. Does the needs assessment account for synergies across interventions?**

Yes. The sets of interventions presented in this handbook are interrelated, part of an integrated



that some interventions will either reduce the need for other interventions or lower their cost. The resulting cost savings can occur through reductions in the population in need. For example, increased use of insecticide-treated bednets will reduce the number of malaria patients, and improved access to contraception can reduce exposure to maternity risks related to unplanned births and affect the volume of services. It can also occur through lowering unit costs. For instance, improved rural roads will reduce the cost of providing essential services in rural areas.

There are several concerns that countries may need to consider when attempting to account for synergies. First, the qualitative link between two sets of interventions may be clear, but the quantification of impact is often difficult, especially for interventions that have multiple indirect effects, such as improved girls' education. Even where there are clear data, the size of the impact may not be known for different settings or for different delivery mechanisms. In addition, interventions can have multiple feedback loops, which further complicate the analysis. Finally, some synergies, such as the impact of maternal education on higher enrollment of their children, are long term and will not substantially influence the 10-year MDG strategy.

But where the synergies among interventions are known and quantifiable, countries should adjust their total resource estimates to reflect them. Cost savings may thus be possible through reductions in such cases as:

- Diarrhea, through expanded access to improved water supply and sanitation and hygiene education.
- Acute respiratory infections, through

- HIV/AIDS, through increased condom use.
- Malaria, through increased use of insecticide-treated bednets.
- Malnutrition, through interventions to reduce hunger.
- Maternal and child ill-health, through access to family planning.

## 7. Why is the needs assessment not derived from a macroeconomic framework?

Achieving the MDGs by 2015 requires a shift in development practice from planning around modest incremental expansions of social services and infrastructure to bold and long-term strategies aimed at achieving the quantitative targets set out in the MDGs. As noted earlier, we need strategies to “achieve the MDGs,” not strategies to “accelerate progress toward the MDGs.”

The prevailing practice is to formulate investment strategies independent of needs after setting the macroeconomic framework to fit official development assistance allocation and overall budgetary ceilings. The resulting strategies are thus *not* MDG-based. To develop MDG-consistent strategies, countries need to reverse current practice by first mapping out an expenditure framework followed by preparing an MDG-consistent macro framework that identifies domestic resource mobilization as well necessary levels of external finance and debt relief.

*For a more detailed discussion, see Step 5.*

## 8. Doesn't the needs assessment approach ignore the importance of policies?

No. Policies and institutional reform are central

in MDG-based national development strategies. While it is difficult to make an unambiguous delineation between policies and interventions, interventions can be thought of as concrete services, goods, and infrastructure that need to be provided largely through public investments. They describe “what to do” and allow us to specify “how much” of each activity is needed. Policies in turn can be best described as rules, procedures, and responsibilities of institutions needed to ensure effective implementation of MDG strategies. They describe “how to do it.”

In some cases, policies will have significant financial implications (for example, removing school fees, using nurses instead of doctors to administer AIDS treatment) and these impacts should be included in the MDG needs assessment. The discussion in Step 3 of this handbook (Conduct a Needs Assessment) covers both policies and investments. A needs assessment ought to be followed by a detailed analysis of policy options, as described in Step 4.

*For more information, see investment cluster discussions in Step 3 (pp. 54–112) and the corresponding section on policies in Step 4 (p. 119).*

## **9. What should be done in crisis countries or in countries where the technical capacity of the government is too weak to develop a full MDG-based national development strategy?**

Some countries—particularly those affected by conflict or with weak governance systems—may not be able to carry out all the analyses and consultations necessary to develop a robust MDG-based national development strategy, partly due to a lack of data. These difficult circumstances

*Adapting strategies for countries affected by conflict.* Countries at risk of conflict or recovering from one could design their strategies to prevent new conflict, by directly investing in peace and security and by ensuring that these plans narrow rather than widen the existing ethnic, regional, or communal divides. Indeed, they will need to target marginalized groups or focus on rehabilitating war-torn areas, ensuring equity in planning and implementation, and include interventions for conflict prevention/mitigation in their needs assessments. For countries in conflict, large-scale government budget support may be impractical, and assistance strategies may have to be targeted locally through nongovernmental organizations.

*Adapting strategies for countries with weak technical capacity.* In countries where the government has limited capacity to scale up investments for the MDGs, the national development strategy process should be viewed as an opportunity for investing in improved skills, capacities, and systems. In many cases, concrete operational strategies put forth in a needs assessment analysis can be implemented to improve governance outcomes. Moreover, governments with weak capacity will need even more financial and technical support to prepare and implement an MDG-based national development strategy.

National development strategies, including PRSPs, are designed to be “living documents” that can be updated and revised regularly without waiting for the end of their term. For this reason countries with severely constrained technical capacity could aim to prepare a first draft of a national development strategy to start the process of implementing interventions. Over time, the strategy can then be refined and expanded to

strategy. Similarly, gaps in data coverage can be gradually filled as new data become available.

In countries where technical capacity or political systems are weak, development partners often get stuck focusing all their energy on these areas of weakness. In these settings, the MDG-based national development strategy process can break the impasse by focusing on actions with real

outcomes in areas where capacity does exist (such as health services in a country with rising child mortality), while also focusing long-term investments in other areas.

*For the discussion on adapting strategies to different country contexts, see Investing in Development (UN Millennium Project 2005b), particularly chapters 10, 11, and 12.*



**Launch an  
effective and  
inclusive  
process**

## Summary

An effective and inclusive process is essential for preparing a national development strategy based on the Millennium Development Goals (MDGs). Experience has shown that MDG planning works best when nationally owned, led by government, and backed by a full and sustained high-level political commitment to ensure that the process defines national policy. In addition, a variety of actors—including national governments, civil society organizations, private sector groups, UN country teams, and development partners—are essential in preparing and implementing MDG-based national development strategies. This MDG planning should build on existing national planning processes and strategies and be integrated into government structures, drawing on local expertise, institutions, and resources. The process will naturally vary across countries, but key principles are:

- High-level political commitment.
- National ownership.
- Integration.
- Inclusiveness.
- Transparency.
- Regular review.

This section highlights important principles that underpin the MDG planning process. Also discussed are insights on how the process may be structured, based on early lessons from countries that have already initiated the MDG strategy process, and indications of the technical and financial resources needed for MDG planning. Some useful tools, such as sample calendars, terms of reference, and checklists, are highlighted here and included in the annex.

Launching a complex strategy process is not easy, and this handbook does not suggest that it is. Preparing MDG-based national development strategies involves many difficult challenges—from managing the work and participation of numerous stakeholders, to strengthening financial and technical capacity for the process, to ensuring the effective integration of this work into existing processes and plans. But these

challenges can be overcome. And policymakers today have a key advantage. They can draw on the lessons from country experiences in preparing national development plans, including national development strategies, to strengthen their MDG planning process. A wide range of training manuals and other tools is also available to help governments prepare for managing this strategic process (see “About this Handbook,” p. ix).

## Guiding principles

The exact structure of the process to prepare an MDG-based national development strategy will vary by country. Even given the wide variation in MDG planning process design, some common principles underpin MDG-based planning:

- High-level political commitment.
- Strong coordination among government partners.
- Integration with existing government and planning processes.
- Inclusiveness.
- Transparency.
- Regular review.

Planning Commission personally took the lead on the MDG process. Such high-level leadership then helped bring the work of various line ministries and government departments together under a joint vision and purpose. It also helped overcome bureaucratic inertia and worked to bring in support from outside the government.

The support and leadership of parliaments and other legislative bodies cannot be overemphasized. They can ensure that development strategies reflect true political priorities and fulfill the promises made to their constituents during elections—promises to improve health and education and reduce poverty, for example. Legislative bodies are accountable to the population and are well placed to oversee implementation of MDG-based strategies.

**High-level political commitment**  
Full and sustained high-level political leadership is essential to preparing MDG strategies. Indeed, preparation and implementation of MDG-based national development strategies will work best if they are considered a national priority. In the Dominican Republic, for example, the MDG planning process achieved high visibility and credibility when President Leonel Fernandez established the Presidential Commission on the MDGs. In Ghana the minister of finance and the

## Strong coordination among government partners

It is important for governments to own and lead the process—and to be accountable for the analysis and recommended strategies. National, regional, and local governments are all integral to the process. Line ministries need to be empowered in planning and implementation, with their work

or finance, the offices of the president or vice president, or special MDG commissions.

Coordination across government ministries can be difficult, given the complexity of this process. To improve coordination, the ministries of planning and finance need to work closely together and regularly communicate with line ministries to draw on their experience and concerns. In Ghana the government held an orientation meeting early on to familiarize its ministries, departments, and agencies with their roles in the national process. Indeed, line ministries often have existing sector plans and strategies that can be the starting point of the analysis. They also have invaluable in-house expertise, especially in implementation, which may help in selecting appropriate interventions for the national and often subnational levels. In Ethiopia and Senegal each line ministry led the needs assessment analysis in its sector and was responsible for the overall results and recommendations from that effort. And in the Dominican Republic ministers led the thematic working groups, as designated by the president.

### **Integration with existing development processes**

The MDG planning process needs to be integrated into existing government programs and planning processes, to the extent possible. Examples include existing national medium-term strategic and vision documents. This is critical for ensuring that the content of the national development strategy builds on experience and reflects the country's priorities and investment needs, linked to long-term goals. In the Dominican Republic a presidential commission was formed in part to provide high-level support for integrating the process into existing structures. This commission

allowing the planning office to focus on substantive activities rather than coordination.

Such integration also facilitates linking the strategy with short-term budgetary and financing frameworks, improving implementation across different levels of government. An MDG coordinator, located in a high-level and central coordinating ministry, may be needed to ensure that MDG-based planning documents are integrated into operational budgets—and that these budgets include areas often neglected, such as gender, reproductive health, environment, sanitation, and water resource infrastructure and management.

### **Inclusiveness**

An inclusive process—open, participatory, and including all stakeholders—is an essential part of MDG-based planning. In addition to government at all levels, stakeholders may include local civil society organizations, academic institutions, and the private sector. To be sure, engaging such a wide range of stakeholders in the MDG planning process is no easy task and requires careful process management. But including nongovernmental actors is critical, because they often bring technical expertise and on-the-ground insights to planning and implementation and can share best practices from their experiences for the MDG-based national development strategy.

It is recommended that traditionally underrepresented groups, such as women's groups, participate in the process—to promote equity and improve the inclusion of investments targeted toward these groups.

### **Transparency**

A fully transparent process permits an open



**Integrating MDG planning into existing planning processes in Ethiopia**

In Ethiopia the MDG needs assessment was part of the government's effort to update its national development strategy, called the Sustainable Development and Poverty Reduction Program. The needs assessment formed the first stage of the revision process, based on existing government plans and documents and aimed at scaling up sector plans to achieve the MDGs by 2015. By integrating the MDG-based planning exercise into ongoing planning processes, the Ethiopian government ensured that it was not isolated from other planning exercises and that it built on the processes and outcomes of previous efforts. The Ministry of Finance and Economic Development took the lead in finalizing the needs assessment and revising the Sustainable Development and Poverty Reduction Program.

**The essential role of women's groups in the MDG planning process**

MDG-based national development strategies must give careful consideration to gender equality in designing their recommended interventions and investment clusters. The participation of women's groups ensures that interventions included promote gender equality. Indeed, in addition to women's various productive roles, women are the main caregivers and household managers in most countries. They often perform a disproportionate amount of physical labor every day merely to keep their families alive. Women's reproductive roles also affect their participation in various social, economic, and political activities.

The recommended interventions—such as improved access to water supply, modern cooking fuels, enhanced transport services, and improved soil nutrients—can reduce gender inequality and empower women. Consideration must be given to how such interventions affect women's empowerment, with women's groups taking the lead throughout the MDG planning process.

intervention strategies, interim milestones, target groups, and so forth. The analysis needs to be explicitly shared with all stakeholders and made available for public review. This can generate internal debate on appropriate interventions. It explains the analysis to other stakeholders. And it focuses the discussions with international partners away from aggregate financing envelopes toward identifying the country's specific needs and how they can be met.

**Regular review**

MDG frameworks are long-term strategies. It is therefore imperative to include mechanisms for regular review and follow-up. This will ensure that plans reflect the most recently estimated needs and are revised based on the impact of different investments and policies in the country. In the Dominican Republic the Social Cabinet has been charged with coordinating the review process for the MDG-based national development strategy.



## Country example

### An open and transparent dialogue in the Dominican Republic

To foster a more open and transparent dialogue among key stakeholders during the preparation of its MDG-based planning documents, the Dominican Republic posted its internal discussions, analysis, and results online (at [www.copdes.gov.do](http://www.copdes.gov.do)). All key stakeholders had easy and open access to information and documents related to the MDG-based planning work—creating both a transparent and a more effective and efficient process.

## Organizing the process

While there are many ways of structuring an effective process, MDG-based planning needs to be underpinned by the principles outlined in the previous section. Typically, the process is guided by a designated high-level official in the government or an MDG coordinator who puts together an MDG strategy group to oversee and coordinate the work of the various thematic working groups (see sample organization chart).

### MDG coordinator

The MDG coordinator is responsible for the overall MDG planning process, and so is typically a high-level official from a coordinating body in the government, such as the ministry of planning or finance. The coordinator puts together and leads an MDG strategy group that sets the vision, strategy, and timeline for the overall process. The group coordinator needs to ensure that the relevant line ministries take ownership of the sector-specific analysis and planning, that such cross-sectoral issues as gender and environment are included in the analysis of sector strategies, and that stakeholders can participate effectively throughout the planning process.

### MDG strategy group

The MDG strategy group, led by the MDG

for the overall MDG planning process. The composition and exact shape of this group will differ across countries but may include line ministries, bilateral and multilateral donors, UN agencies, provincial and local authorities, and domestic civil society leaders, including women's organizations. The MDG strategy group coordinates the work of thematic working groups and identifies experts to pull together the work of all of the sectors into one common framework to estimate the overall resource requirements for the country.

The MDG strategy group needs to be integrated into existing strategic planning bodies. It also has to work closely with the ministry of finance to ensure that the strategy is linked to the government's operational budget. It is particularly important that line ministries, such as health and water, are not excluded from the planning process and instead take leading roles in the respective working groups. Officials from other levels of government—such as district or local governments—also will need to be included in the MDG strategy group or in the thematic working groups, especially in countries with federal structures.

### Thematic working groups

The MDG strategy group can organize a series

# step 1

## Sample organizational chart



*Note:* The structure of this process will vary according to the national context. This diagram provides a template for thinking through how to best organize the roles and responsibilities of stakeholders.

participation, to develop the strategies for scaling up investments in such areas as health, rural development, and education. These thematic groups oversee the needs assessment analysis in their areas, deciding on interventions, targets, and delivery models as well as approving the final results.

It is recommended that ministers, or their senior staff, lead the thematic working groups and be responsible for convening regular meetings, setting timelines, and reviewing the analysis and plans. They also will need to identify analysts to support the needs assessment. And to the extent possible,

as the ministry of planning or finance or the line ministries. Clearly defined terms of reference and continual supervision by the group to make sure that their analysis is rigorous and represents the needs identified by the working groups will be essential.

In some cases several ministries may need to have input into one thematic working group, as the cluster may include interventions managed by more than one ministry. For example, the analysis and planning for the rural development investment cluster (see Step 3) may require inputs from the ministries of agriculture, environment, infrastructure, and water resources. This process will need to be carefully managed by each of the line ministries and the chair of the thematic working group.

Many countries already have similar working groups in place (such as SWAp groups or donor-government sector groups). These can be used—with enhanced membership, as needed—to focus on the MDGs. In any case, thematic working groups should include individuals with expertise in similar planning processes, such as those for Education for All and the Fast Track Initiative, as well as those with cross-sectoral expertise, such as the national AIDS authority or commission. The MDG strategy group and each of the thematic groups should include gender expertise to fully integrate actions for gender equality. Adequate environmental expertise should also be available to these groups to align sector strategies with environmental objectives (see country example).

### Assigning responsibility: key actors

Different actors will need clearly defined roles and responsibilities to make this process work, as



## Country example

### Ensuring cross-sectoral expertise across thematic working groups in the Dominican Republic

The Dominican Republic has nine thematic working groups, including groups for environment and gender. To ensure that gender-specific interventions are included in the analyses and mainstreamed throughout the process across thematic working groups, the Ministry of Women's Affairs has designated representatives to all thematic working groups. This approach was then followed by the Ministry of Environment and Natural Resources, which also designated representatives from the ministry to each of the working groups to mainstream environmental sustainability issues.

discusses what various stakeholders contribute to the process and how they may best be included.

*National government.* As previously described, it will be essential for the national government to own and lead the process—and be responsible for the results of the needs assessment analyses that underpin the MDG-based national development strategy. Full and sustained high-level leadership is needed for the MDG planning process. Top officials from government may lead the MDG strategy group and thematic working groups outlined in the organization chart. An MDG coordinator, perhaps from the ministry of planning or finance or other appropriate office, will need to ensure that the efforts of the MDG strategy group and the thematic working groups are closely coordinated and that the relevant line ministries own their sector analyses. Local government officials should also take active part in the MDG planning process, because their expertise and on-the-ground insights are invaluable in selecting appropriate interventions and identifying means of implementation.

*Civil society.* Civil society groups are crucial for MDG-based planning in two main ways. First,

communities and regions. Second, they have extensive experience in delivering services to the poor and can recommend appropriate interventions in different parts of the country. They therefore need to be represented in thematic working groups, with public consultations to engage them on important issues for MDG planning.

*Private sector.* The local private sector should be represented alongside others in the MDG planning process. Through representation by national chambers of commerce or similar organizations, the private sector can participate in relevant thematic working groups. Private sector groups may be especially helpful in identifying the best modes of delivery for infrastructure investments, such as those for energy, transportation, and water and sanitation, contributing vital management expertise to the process. They are also important partners in mobilizing resources to achieve the MDGs.

*UN country teams.* The UN country teams have access to specialized technical expertise that plays an important role in supporting the needs assessment. The UN agencies, funds, and



## TIP

### Getting assistance for the MDG strategy process

The UN system, donors, and the UN Millennium Project are potential resources for assisting countries with launching the MDG strategy process. Once the head of government has committed to starting the preparation of an MDG-based national development strategy, the best way for countries to tap these resources is to organize a group of experts in the specific MDG-related clusters (such as rural development, urban development, health, and the like) who can work with the technical working groups and provide advice on how to proceed with needs assessments in those areas. Outside expert resources can then be directed to specific areas of need.

the host government requests. As trusted partners of governments and civil society, UN country teams can support the setting up of consultative processes for the design of MDG-based national development strategies.

To align their activities with achieving the MDGs, UN country teams will need to review their country cooperation strategies and programs, including the Common Country Assessment and the UN Development Assistance Framework. Each UN agency could appoint a focal person to the working group that covers its area of technical expertise. The agency could provide substantive support in preparing the national development strategy by reviewing and contributing to the ongoing analysis, drawing on experience in the country and from other countries. This work can then feed into ongoing UN processes, including the Common Country Assessment and the UN Development Assistance Framework. In many countries where this work is under way, the UN is supporting the coordination of the MDG process, and in some, specific UN technical agencies have supported the work in their sectors. In Ethiopia, for example, the United Nations Development Programme (UNDP) has worked with the government and other UN agencies to forge a coordinated UN country team

Together with the government, the UNDP chairs the MDG strategy group in Ethiopia, known as the MDG task force.

*International financial institutions.* International financial institutions should participate both in the strategy group and in the thematic working groups. In particular, the World Bank's sectoral and economic expertise can make an important contribution to MDG needs assessments. The International Monetary Fund (IMF) and regional banks can lend guidance on the process of developing an MDG-consistent Medium-Term Expenditure Framework and macroeconomic framework.

*Development partners.* Donors can contribute technical and managerial expertise and may provide critical financial support for the preparation and implementation of the MDG-based national development strategy. Their participation is needed to develop a broad consensus on the country's investment needs and priorities for achieving the MDGs. Such a consensus will form the basis for an honest dialogue about needed development assistance. Starting early in the process, donor agencies may want to designate a focal point for participating in





## Example

### African Women's Millennium Initiative on poverty and human rights

The aim of the recently established African Women's Millennium Initiative on Poverty and Human Rights (AWOMI) is to foster African women's leadership in promoting women's human rights and accountability in the fight against poverty. This civil society group will work with African countries preparing MDG-based national development strategies to ensure that interventions to empower women are fully integrated in MDG-based planning documents. In all the African countries that have initiated MDG-based planning AWOMI will soon begin working with community-based and national women's groups together with governments to strengthen gender-disaggregated poverty statistics, better integrate poor women's concerns, and reinforce women's participation and voice in the preparation and implementation of MDG-based strategies.



## Q&A

### Why are young people important for MDG planning and implementation?

There are currently more than 1.2 billion young people ages 15–24, more than three-quarters of them in developing countries. And a growing number of nongovernmental youth organizations are making significant contributions to achieving the MDGs. Interventions specifically targeting youths are more likely to be implemented if their voices are systematically included in the MDG planning and implementation process. What contributions have youth groups made to achieving the MDGs?

- *Youth and education.* In more than 35 countries Free the Children, an international network of children helping children, helps to protect children's rights and promote primary education.
- *Youth and water.* In several countries worldwide Youth Water Action Teams are working to support youth-initiated water projects, raise awareness on water-related issues, and affect decisionmaking by national governments. In Egypt the team is developing an action plan to improve the country's water quality.
- *Youth and agriculture.* In India Young Farmer Field Schools train young farmers in crop and soil nutrient management to improve decisionmaking in the sustainable use of resources.

### Setting timelines and deliverables

The MDG planning process should include clear timelines and deliverables that are in line with the country's development process. For example, the MDG planning process should ideally be initiated about a year and a half in advance of the deadline for preparing or revising the national development

national development strategy was due for revision in mid-2005, so the government conducted an MDG needs assessment almost a year in advance, in August 2004.

As part of preparing an MDG-based national development strategy, several tangible outcomes



## Country example

### Tailoring the process—a UN-led process in Tajikistan

Should stakeholders other than the government take the lead in initiating the MDG planning process? In Tajikistan the UN country team initiated the process and played a leading role—from preparing work plans and timelines, to conducting the needs assessment activities, to coordinating donor advocacy for each sector. These efforts paved the way for the government to take ownership of the process. Clearly, for countries to prepare and implement MDG-based national development strategies, governments need to own and lead these efforts. But other key stakeholders, especially UN country teams, can add much to this process. In some cases this may include supporting the government throughout the process—from initiating planning to providing technical support for the preparation of a strategic document.

needs assessment across multiple sectors, a long-term (10-year) MDG framework for action based on the needs assessment, and a short term (three- to five-year) national development strategy derived from the long-term framework. The primary responsibility of the national government, these deliverables should be planned in such a manner that they feed directly into ongoing government dialogues with development partners.

### Identifying financial and technical resources for the planning process

Preparing an MDG-based national development strategy requires financial and technical resources—to undertake the analysis, hire short-term consultants, host consultations and training workshops, and disseminate results.

Each country initiating an MDG-based strategy needs to identify the financial and technical resources required for the planning. Funding may come from domestic resources, UN agencies, donors, the private sector, or civil society—or through a cost-sharing arrangement among these various actors. Technical capacity for the preparation process will also need to be assessed.

Are there individuals with the time and the appropriate skill set available in government ministries and UN agencies to undertake a complex needs assessment for each investment cluster? Depending on the answer, short-term consultants may need to be hired. Training workshops will also need to be planned to familiarize thematic working groups with the MDG-based planning methodology.



## Setting clear timelines and deliverables in Tajikistan

Tajikistan created a timeline for preparing an MDG-based national development strategy based on its schedule for revising its next Poverty Reduction Strategy Paper. In February 2004 UNDP began the needs assessment, to support the government as it initiated a process for developing a national MDG strategy. The government formed sectoral working groups on health, education, water and sanitation, gender, and food security in July 2004, and the draft needs assessment was presented to a consultative group for review in November 2004. Since then the document has undergone additional refinements based on these consultations and analyses on infrastructure and the environment were added. The final report on the needs assessment was presented to the head of government in mid-May 2005 as a basis for developing the revised Poverty Reduction Strategy Paper. At each stage of the process, a clear list of deliverables was identified, as set out in the original terms of reference for this work (see Tools, p. 180, for a sample terms of reference).

## Illustrative timeline and key milestones for preparing an MDG-based national development strategy

[illegible]



### Financing the MDG planning process

The cost of preparing an MDG-based rural development strategy (just one part of the full MDG national development strategy) was estimated to be more than \$92,000 in an African country that had already initiated an MDG planning process. This estimate includes the costs of hiring short-term consultants, providing training in MDG needs assessment methodologies, hosting consultations and workshops, and disseminating results.

### Illustrative Budget:

#### Financial and technical resources for the MDG needs assessment

Investment cluster: Rural development and food security

Investment cluster	Activity	Lead government agency	Input	Budget
Rural development and food security	Analysis	Ministry of agriculture	Hire consultant on rural development and food security	\$36,000
			Hire consultant on agriculture	
			Hire consultant on infrastructure	
			Stakeholder consultations and forums (12); training workshops	
			Dissemination of MDG-based national development strategy and related documents	
	Results dissemination	Lead sectoral ministries		\$20,000
	Consultations and technical workshops	Lead sectoral ministries, ministry of finance and economic development		\$36,000
Subtotal				\$92,000



## TIP

### Tips for getting the process right:

- *Align incentives.* Line ministries need to see the MDG-based national development strategy as a means of achieving their objectives so that they participate actively from an early stage and view themselves as joint owners of the process. To this end, line ministries could participate in the MDG strategy committee, or other coordinating body, and work closely with the ministry of finance to ensure that their budgetary allocations are based on the results of the needs assessment.
- *Clarify the terms of reference.* Clear terms of reference for the process, and for all its stakeholders, are essential for an effective process. It is worthwhile to invest heavily in clarifying the terms of reference in consultation with the line ministries at the beginning of the process. This is particularly important for the analysts who carry out the needs assessment on behalf of the working groups (see Tools, p. 180).
- *Ensure coordination between the UN country team and other development partners.* It is important that all UN agencies and international financial institutions participate fully in this process for it to succeed, building on ongoing UN processes, such as the Common Country Assessment and the UN Development Assistance Framework. Indeed, the UN can make available critical technical support for all areas covered by the MDGs. This support can be provided as a core element of country-level programs with strong support from agency headquarters and regional centers instead of being seen as an additional burden. All donor assistance for the preparation of the national development strategy should be coordinated at the initial stage of the process.
- *Schedule regular consultations.* Progress in preparing the MDG-based national development strategy should be presented and reviewed regularly by a broad set of stakeholders—for example, at the conclusion of the sector needs assessment, at the completion of the synthesis needs assessment, during the formulation of the long-term MDG framework, and during the budgetary discussions. Feedback from the consultations should inform revisions to the plans.
- *Adopt a broad analytic approach.* The analytical process should draw on a broad range of technical expertise to ensure that cross-sectoral issues (such as reproductive health, gender equality, and environmental sustainability) are appropriately addressed.



**Take inventory:  
reviewing existing  
strategies and  
defining the  
baseline**

## Summary

After countries have successfully launched the process for creating an MDG-based national development strategy, working groups will need to determine how the country will meet the MDGs. The rest of this handbook gives practical guidance on undertaking an MDG needs assessment and preparing a framework for meeting the MDGs. But in many countries much of the necessary work will have already been done and will be embodied in existing strategy documents or other resources. It is important that work on an MDG-based national development strategy build on current thinking and development practice—to draw on past lessons and to avoid repeating work or circumventing existing processes. Countries will draw particularly heavily on past work in two areas: strategy formulation and data analysis. This step outlines how countries can begin by taking inventory of existing resources in these areas.

The first section, “Taking stock of existing plans and strategies,” briefly outlines how MDG-based national development strategies can build on development strategies that have already been written or implemented. The second, “Defining the baseline,” outlines how and why countries should start a needs assessment by reviewing current MDG-related activities and progress toward the MDGs. In some cases much of this information will have already been compiled and synthesized, leaving countries well placed to continue with the MDG needs assessment. In other cases countries may find that required information must be culled from various national sources. The shaded sections, “Working with primary data” and “Overcoming difficulties,” go into more detail on how baseline information can be located.

## Taking stock of existing plans and strategies

As emphasized throughout this document, an MDG framework aims to align existing planning instruments and processes with the ambition, scope, rigor, timeframe, and financing necessary to meet or exceed the MDGs. Some low-income countries have already designed bold plans to scale up their sector strategies. In some cases, an assessment of the resources required to meet MDG-consistent targets will also have been done, obviating the need for a new analysis. Yet plans for such investments have often been on the shelf for years, because of a lack of funding or other support to carry them out. Or existing plans and strategies

may be technically sound but limited in ambition due to resource constraints. They may therefore simply need to be expanded in ambition and scope. Such planning documents can offer valuable guidance on targets, interventions, and priority areas for MDG-based planning. Working groups can also use available documents to identify areas where existing policies and strategies can be strengthened to meet the MDGs. UN Millennium Project recommendations on targets and interventions, presented in Step 3, can then be used to supplement existing national plans.



### Checklist

#### Some existing plans and strategies that may be used for MDG planning

- *Existing national development strategies* are a clear place to start, as both a resource to draw on and one to help identify areas for improvement.
- *Draft national development strategies* can be a great resource for ideas that were planned but never implemented, often for lack of funding or technical support.
- *Vision documents or other long-term strategy documents* can help align long-term national goals with short- and medium-term plans—and help make both consistent with meeting the MDGs.
- *Sectoral or ministerial strategy documents* provide an important basis for the work of thematic teams. The MDG process can link the plans of different sectors into a coherent national strategy to meet the MDGs.
- *MDG reports*, discussed in more detail below under “Defining the baseline,” often go beyond simple reporting to outline key efforts and challenges in meeting particular MDGs.
- *National Human Development Reports* also often outline the challenges and strategies for meeting the MDGs at the national level. Many reports contain important subnational socioeconomic data.

## Defining the baseline MDG status and coverage of interventions

To begin planning for the MDGs, countries will need to take stock of the current situation by defining the baseline status of the MDG areas (such as poverty, hunger, and maternal health) as well as the coverage of MDG interventions across the country (for example, use of fertilizer, access to primary schools and clinics, and access to sanitation). This information can assist governments in assessing how far the country is from achieving the MDGs and how to set priorities in their MDG strategies.

In many cases existing strategies and planning documents will already contain some of this information (for example, national MDG reports). If so, countries will be well placed to continue with MDG needs assessment. In other cases countries may find that primary data must be collected from various national sources. This does not mean that countries need to start by undertaking new surveys or collecting new data—it means that teams can draw on the information

currently available from a variety of sources. “Working with Primary Data” (pp. 34–35) goes into more detail on strategies for locating baseline information.

Depending on national geography and administrative arrangements, it may make sense to locate sources of this information for different regions or administrative units to make national development strategies actionable at regional or local levels. For example, in an MDG needs assessment prepared recently, Indian analysts decided to use state-level targets and indicators for three states, Rajasthan, Madhya Pradesh, and Uttar Pradesh. Seeking information at subnational levels may increase the complexity of data compilation, but it can also make the strategies more practical.

### Charting the status of the MDGs

To create sound MDG-based strategies, countries will have to assess where they are today and



### Why are data important for development?

*Inform policymaking.* At all stages of MDG-based planning policymakers require robust data to design effective interventions and policies, monitor their results, and make mid-course corrections as necessary.

*Assist advocacy and accountability.* Civil society organizations and development partners require data on development outcomes and the effectiveness of government actions to evaluate policies and to hold actors at all levels accountable for results. Data can thus be a key to strengthening accountability at all levels.

*Improve outcomes, ensure equity, and promote accountability and transparency.* As evidence of progress or lack of progress in meeting national objectives, data can also be used to gain support and request additional funding to reinforce or reform current practices.



**What kind of information is important for MDG planning?**

Information that policymakers and advocates use to design, implement, and monitor national development strategies can be divided into two basic types.

**Outcome indicators.** Track the levels and trends in variables that a country identifies as the goals of policies and investments. Examples are maternal mortality or child mortality rates, access to water and sanitation, and other MDG targets and indicators. Information on outcomes is very important at the outset of MDG planning to establish a baseline, and at all later stages to measure and evaluate a strategy's effectiveness and the impact of unanticipated events.

**Input/process information.** Tells about the financial and physical resources that have been deployed to achieve the desired outcomes. Depending on the stage of implementation, this information will include procurement and salary data; deliveries, dispensation, construction, and training activities; and the number of facilities opened, infrastructure completed, and number of new staff posted in previously underserved areas. Policymakers and activists can use input information to track progress in implementing national development strategies.

**Together, process information and outcome indicators can help countries refine policies and investments to better address MDG needs.**

determine their recent rate of progress toward the MDGs. Many countries have been supported by the UN system to undertake comprehensive reporting on the MDGs. The resulting MDG reports support public mobilization and debate on the MDGs. They also bring together “data already collected, analysed and assessed through a consultative process among development partners, as reported in PRSPs, UN Common Country Assessments (CCAs), National Human Development Reports (NHDRs), and other reports/assessments/ strategies prepared by the Government, academic or research institutions, CSOs, treaty bodies and external partners” and give “support to national capacity for data collection, analysis, and application” (UN 2002, p. 6).

Good MDG reports provide baseline information

MDGs. In the absence of strong MDG reports, analysts will need to compile information from other sources to establish clear baselines. Several publications and resources are available to outline best practices in establishing baselines and to help analysts identify data sources (see the “See also” section below). Again, this does not mean that countries need to start by undertaking new surveys or collecting new data—it means that teams can draw on the information currently available from a variety of sources. For more on compiling current resources, see “Working with primary data” (pp. 34–35).

In addition to knowing *how much* poverty exists nationally, countries will want to know *who* suffers from deprivation—for example by



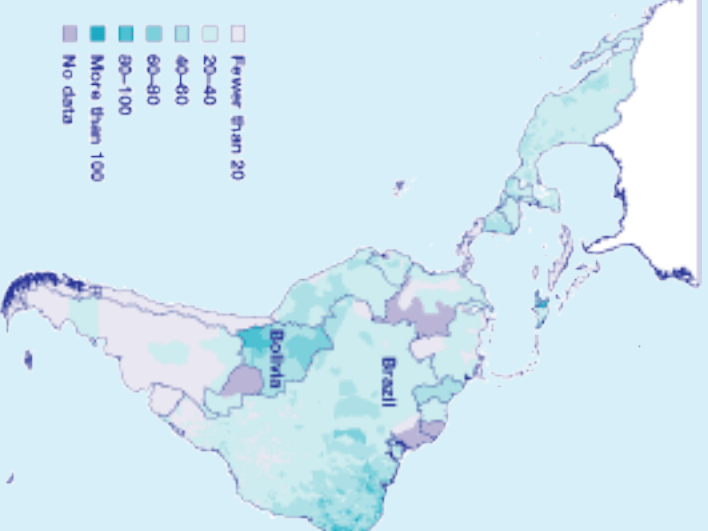
## Country example

### Disaggregation and equity analysis

Information that is broken down (disaggregated) by, for example, gender, ethnic group, age, wealth, or geographic region allows policymakers to target policies to underserved communities and to monitor the equitable implementation of policies and service delivery (Wirth and others 2004 citing Braveman 1998).

For example, looking solely at national infant mortality rates in Latin America and the Caribbean can blur important differences within countries. In 2002 the national average was 56 deaths per 1,000 live births in Bolivia and 35 in Brazil. As the map makes clear, however, there is significant variation within these countries, indicating discrepancies in the provision of essential health services and signaling “pockets of poverty.” For more information on the MDGs in Latin America and the Caribbean, policymakers can look at national and regional MDG reports and other resources at [www.undp.org/rblac/mdg](http://www.undp.org/rblac/mdg).

Many international organizations and agencies also develop disaggregated data, which may be helpful to countries:



- The United Nations Development Fund for Women (UNIFEM) works to improve the quality and quantity of gender-disaggregated data.
- The United Nations Educational, Scientific and Cultural Organization (UNESCO) works to improve the level of disaggregation in education statistics.
- The Vulnerability Analysis and Mapping (VAM) surveys prepared by the World Food Programme (WFP) can provide useful data on poverty and hunger at district and subdistrict levels.
- The UN systems' DevInfo database is a key resource for data in all areas and levels of disaggregation.

(continued on the next page)



## Country example

*(continued)*

- Many organizations—such as the World Bank, the World Food Programme, and the Food and Agriculture Organization (FAO)—have also been exploring ways to map poverty using spatially disaggregated data, often combined with small-area information from national censuses, to geo-reference poverty indicators. Many UN agencies are also using geographic information system data to facilitate subnational mapping.
- Taking another approach, Columbia University's Center for International Earth Science Information Network (CIESIN) has used disaggregated data to establish an “equity baseline” for poverty, health, and hunger in several countries. This effort relied on using widely available data from recent Demographic and Health Surveys (DHS) and Multiple Indicator Cluster Surveys (MICS) to examine a variety of health indicators across different population variables. This analysis can often reveal complex results. In Tajikistan, for example, immunization rates vary extensively between regions, but do not vary significantly between people with different levels of wealth. They are also higher in rural areas than in urban areas.

### See also

For country and regional MDG reports: [www.unpd.org/mdg/country\\_regionalreports.html](http://www.unpd.org/mdg/country_regionalreports.html)

For UN statistics, Millennium Indicators database, and more: <http://unstats.un.org>

For suggested methods and sources for monitoring MDG indicators, download the booklet “Indicators for Monitoring the Millennium Development Goals: Definitions, Rationale, Concepts, and Sources” (UN 2003, ST/ESA/STAT/SER.F/95) at: [http://unstats.un.org/unsd/mi/mi\\_links.asp](http://unstats.un.org/unsd/mi/mi_links.asp)

DevInfo: [www.devinfo.org](http://www.devinfo.org)

Columbia University's Center for International Earth Science Information Network (CIESIN): [www.ciesin.org](http://www.ciesin.org)

or rural location, region, age, and ethnicity and by identifying which variables are correlated to particular dimensions of poverty. Sufficiently disaggregated data are often hard to find, but

several agencies and countries have created comprehensive “poverty maps.” Where available, these analyses can be a cornerstone of the needs assessment analysis. (See the country example for more on conducting an equity-sensitive needs assessment using readily available data.)

### Estimating current coverage of interventions to reach the MDGs

Working groups will also need to get a picture of access to the goods and services required to reach the MDGs. How many people are currently reached by various development activities? Who is being reached? Which government and nongovernmental bodies are involved in providing infrastructure and services? How effective are current interventions? For example, in addition

to maternal mortality ratios analysts will want to know how many women have access to emergency obstetric care and basic reproductive health information and services. Completion rates for primary school may need to be complemented by information on the average number of pupils per classroom and other quality parameters.

The MDG targets and indicators are a good starting point for identifying data needs. For areas not specified in MDG indicators, teams can work with statisticians and sector professionals to determine what information may be needed and to identify data sources (see “Working with primary data” below).

## Working with primary data

Accurate and comprehensive information is a key input to a good national development strategy. Without high-quality MDG reports and other compilations of MDG-relevant data, countries will have to work with primary data sources to create MDG-based national development strategies. This section gives suggestions for compiling data and filling data gaps.

In developing an MDG-based development strategy, teams will have to compromise between the need to act quickly and the need for more accurate data. Readily available information and documentation will almost certainly not answer all the questions brought up by an MDG needs assessment and the process of long-term planning. But this is not a reason to delay the preparation of a strategy for achieving the MDGs. Even in the presence of major data gaps enough will be known to start addressing key determinants of poverty immediately. Over time, data gaps can be filled to refine strategies for achieving the MDGs.

When needed information is not readily available in MDG reports or other compilations, working groups have several other sources they can turn to. Information for national MDG strategies can come from one of three main sources: administrative data, survey data, and information and advice from development professionals.

### Administrative data

Administrative data are collected by government agencies and ministries as part of providing services and for administrative purposes, such

as population registration, border control, and business regulation. Administrative data describe inputs to government programs, activities carried out, and the basic goods and services provided. Ideally, service providers collect data on such issues as national research and development expenditure, number of visits to clinics, and proportion of women in local government. Civil society organizations and international organizations often keep similar data on the services they provide. In addition, governments collect information about basic economic activity such as trade, industrial production, saving, and investment. Government fiscal accounts and to some extent project documents may also allow analysts to assess the allocation of funding for specific interventions.

### Surveys

Surveys of households, enterprises, agricultural production units, and individuals are another key source of information. Because surveys collect multiple pieces of information from the same people, they are critical for understanding the drivers of poverty in its many forms. In addition to studies from domestic sources—national and regional government agencies, academic institutions, and civil society organizations—most developing countries have participated in one or more internationally supported household surveys, such as the Demographic and Health Surveys (DHS) conducted by the United States Agency for International Development (USAID) and Macro International, the World Bank's Living Standards and Measurement Surveys (LSMS), and the Multiple Indicator Cluster Surveys (MICS) conducted by UNICEF.

One of the most important national data sources is the national census, which provides basic demographic information from every household, and is used to calculate many important statistics—the per capita income, the maternal mortality ratio, the share of people with or without access to specific services, and so on. In contrast to surveys, censuses collect a more limited range of information from every individual instead of using a sampling technique to model the characteristics of the population. They are often used to verify administrative data, to derive proximate indicators, and to provide a sampling frame for household surveys (PARIS21 2004). Censuses can be the only source of information about small areas within a country to allow disaggregation by small

geographical or administrative units. Poverty-mapping techniques can use small-area census data to link to survey data and dramatically increase the disaggregation of other indicators.

### Expert advice

Development professionals in government, civil society organizations, international organizations, and bilateral donor agencies are a third main source of MDG-related information. Quantitative data are of course an essential component of tracking progress and analyzing the dynamics of poverty, but this kind of information should be supplemented and interpreted through the advice and assistance of technical experts with experience in the country.

### See also

For more information on using primary data for poverty reduction activities, see the World Bank's 2004 "A Sourcebook for Poverty Reduction Strategies," available at [www.worldbank.org/poverty](http://www.worldbank.org/poverty). The chapter "Strengthening Statistical Systems" is an excellent introduction and resource for sources, strategies, and technical needs for working with primary data in the medium and long term. It will be useful to any country working with primary data, regardless of the country's involvement in the PRSP process, and includes a comprehensive list of web resources.

For more information and documents about building capacity for statistical systems and for best practice advice, see the resources available from PARIS21 at [www.paris21.org](http://www.paris21.org).

## Overcoming difficulties

Limited data availability poses a challenge for preparing MDG-based national development strategies. To satisfy immediate needs, required information can be estimated in a number of ways. As national strategies for data collection and management are implemented, countries will be able to refine the inputs to MDG analysis.

### Filling gaps—proximate information

At every stage in the development and execution of an MDG-based strategy, analysts should lay out the questions they want to answer. How good is our school system in province X? Who has access to what kinds of financial services and at what cost? Is the national transport infrastructure adequate? It is likely that the desired information will not be readily available—or will be available only in aggregate form at a national level. Such gaps in key indicators as well as their level of disaggregation need to be identified as part of the MDG needs assessment.

For the immediate requirements of an MDG needs assessment, countries can fill data gaps by using or developing proximate information. Sometimes a simple substitute of one type of information for another will suffice. For example, primary school completion rates and transition rates to secondary school are often used as proximate indicators of quality in education. Similarly, the number of people within two kilometers of a motorized pick-up point in a particular region may not be known, but road density (kilometers of paved road per 1,000 people) is often readily available. This may serve as a reasonable, if clearly inferior, approximation of access to transport infrastructure. In other

cases, analysts can “triangulate” by using one or more complementary pieces of information to approximate the needed information (see diagram). Note that administrative data are an important and often overlooked source for proximate information.

While quantitative data are important for the design of robust strategies, a lot can be done in their absence. If sufficiently disaggregated information is unavailable, for example, analysts may be able to identify underserved areas or regions of special concern by speaking with experienced development practitioners.

Where information gaps remain, they need to be clearly identified and addressed in MDG-based strategies. For example, most low-income countries need to strengthen their national statistical offices and increase the frequency and scope of household surveys. MDG needs assessments and national development strategies should therefore map out long-term strategies for addressing these critical bottlenecks. Later sections in this handbook address the resources and strategies needed in the medium- and long-term to establish robust national data management systems and statistical capacity (see Step 3) and best practices for monitoring and evaluation (see Step 4).

### Dealing with data discordance

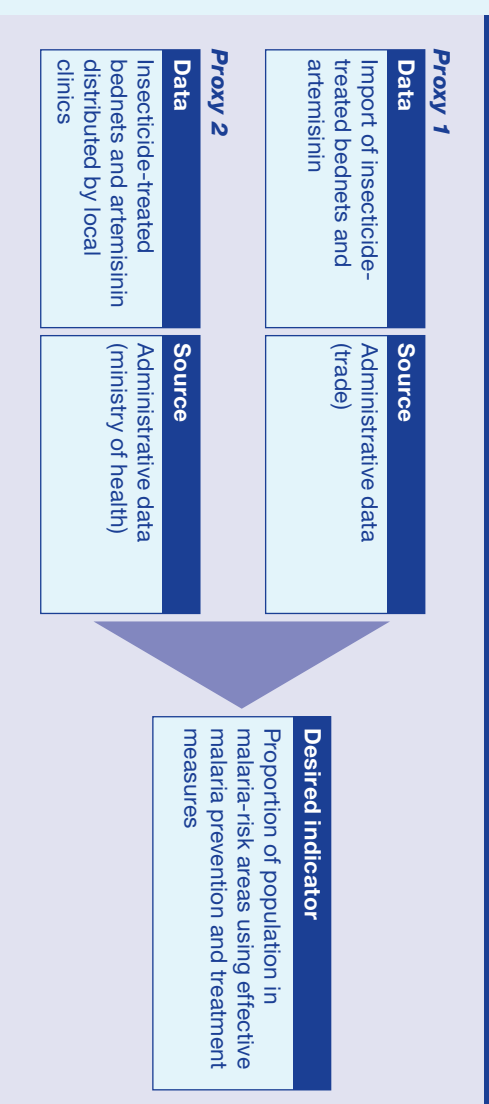
Analysts and policymakers will likely encounter inconsistent or contradictory pieces of information, such as apparently high levels of access to health services coupled with low health outcome indicators. Several types of such data discordance can occur.



- Conflicts between inputs and outcomes—where, for example, high levels of access to a particular input do not correlate with the expected outcomes (policymakers will be particularly interested in these cases).
- Multiple sources that contain conflicting information on the same or similar indicators (particularly when using both national and international sources).
- Information that simply seems out of line with other information or with common sense.

During preparation of MDG-based strategies it is important that such discordances be identified and, if possible, resolved. Where they do not derive from data problems they can point to important challenges that need to be addressed to meet the MDGs (see country example).

## “Triangulating” for proximate indicators





## Country example

### Dealing with discordance

#### *Input/outcome conflicts*

A good example of input/outcome conflict comes from the Dominican Republic, where national maternal mortality ratios are high despite figures indicating that more than 90 percent of births occur in hospitals. This may indicate deficiencies in the skills, competence, or accountability of health workers, resulting in poor quality care. This data “problem” in fact allows policymakers to design interventions to improve the quality of existing services. It also calls for the review of training to ensure the development of appropriate skills.

#### *Multiple sources—conflicting information*

International databases and national administrative data can each report national primary completion rates, often with widely different estimates. What may seem like discordance, however, can often stem from differences in definitions. To allow for comparison across countries, international sources usually measure the number of students completing the international standard of five years of primary school. In many countries, however, a full course of primary school is six or seven years. At the national level, then, it makes little sense to count “completion” at year 5, and nationally reported rates may therefore be significantly lower than reported in international sources. Where no such clearcut difference in definition exists, countries may have to determine case by case which source to use.

#### *Bad data*

The short-term solution to poor-quality data is the same as for missing data—using proximate information to substitute for the flawed data. The long-term solution is to obtain better data. As with notes on missing data, information about flaws in current data can be a key input into designing a robust national statistical system.





**Conduct  
a needs  
assessment**

## Summary

Needs assessments map out the interrelated interventions needed to meet the Millennium Development Goals (MDGs) between now and 2015 and quantify the necessary human resources, infrastructure, and financial resources. The analysis can be divided into nine areas of activity—termed “investment clusters” in this handbook:

1. *Rural development.* Increasing food output and rural incomes.
2. *Urban development.* Promoting jobs, upgrading slums, and developing alternatives to new slum formation.
3. *Health systems.* Ensuring universal access to essential health services.
4. *Education.* Ensuring universal primary education and expanded post-primary and higher education.
5. *Gender equality.* Investing to overcome pervasive gender bias.
6. *Environment.* Investing in improved environmental management.
7. *Science, technology, and innovation.* Building national capacities.
8. *Cross-national infrastructure.* Increasing trade integration and government cooperation.
9. *Public sector management.* Enhancing the effectiveness of government.

This chapter gives an overview of the four parts of an MDG needs assessment for each of these clusters—identify interventions, define targets, estimate resource needs, check results—and provides country examples of customizing the analysis. It reviews recommended investments to reach the MDGs, gives guidance on setting outcome and coverage targets, and proposes tools (such as spreadsheet-based models) for estimating resource needs.

## Before beginning the needs assessment

Before beginning the needs assessment, countries will want to understand how the MDGs apply to their setting and define the investment clusters needed to achieve the MDGs.

### Interpreting the MDGs at the country level

To create a MDG-based national development strategy, a country will need to begin with a clear sense of how the MDGs apply to their setting. For some MDGs, this may require a country-specific interpretation. For example, the MDG on environment (“Ensure environmental sustainability”) will require specific national interpretation to guide MDG-based planning. Other MDGs are more specific but may require quantification so that progress can be clearly tracked. These include MDG 6 “Combat HIV/AIDS, malaria, and other diseases.” To translate this target into a measurable national outcome, countries

will need to decide the HIV/AIDS, malaria, and TB prevalence or incidence rates they want to achieve by 2015. Some MDG targets—such as target 11 on improving the lives of slum dwellers and providing alternatives to slum formation—also need to be quantified and interpreted at the national level.

In addition, as discussed above, a comprehensive needs assessment will include targets for several critical areas not explicitly addressed by the MDGs. For example, it is important to formulate national targets for sexual and reproductive health as well as access to energy and transport services, because these are critical for reaching the poverty, health, and other MDGs.

Last, some countries may wish to adopt the MDGs as they are, while others may wish to exceed the MDG targets or go beyond the MDGs in setting their national development goals.

The MDGs are the floor for development, and countries should feel empowered to achieve or exceed them. Many countries may also want to set subnational (province or district) and local goals (such as city goals for improving the lives of slum dwellers).

### Defining investment clusters to achieve the MDGs

The MDGs are outcome goals. In identifying MDG interventions it is important to distinguish between MDG outcomes, such as hunger reduction, and areas of programmatic activity, such as raising agricultural productivity and providing nutrition. In some cases this distinction can be blurred since, for example, “health” refers to an area of programmatic activity (building



## Q&A

### How do the investment clusters map to the MDGs?

Each cluster contributes to achieving several MDGs, and each MDG can be met only through integrated strategies involving more than one cluster. For example, the first cluster on rural development will contribute to meeting the MDG targets related to poverty, hunger, gender equality, environmental sustainability, water supply and sanitation, and youth employment. These links between the nine clusters and the MDGs and targets are summarized in the annex to this handbook. The clusters together with their interventions are further described in this section and in more detail in the annex.

To be operational, strategies to reach the MDGs and the underlying needs assessments should be grouped around core areas of work of national governments, local authorities, and other actors who will implement the interventions. For example, a municipality or local authority tends to be in charge of delivering basic infrastructure and urban services within a city and is thus in charge of meeting many MDGs. So an effective MDG strategy will spell out how municipalities can organize their activities in support of the MDGs. This does not mean that they are the only parties responsible for achieving a particular MDG, but that they play a critical planning and coordinating role. We therefore organize our needs assessment by areas of operational activity, which we call “investment clusters.”

The UN Millennium Project proposes nine investment clusters for reaching the MDGs that countries can adapt to their needs. Of course, countries may have a broader set of investment clusters or a broader set of interventions within clusters to reach their specific development goals above and beyond the MDGs. Countries will also set priorities for the sequencing and resource

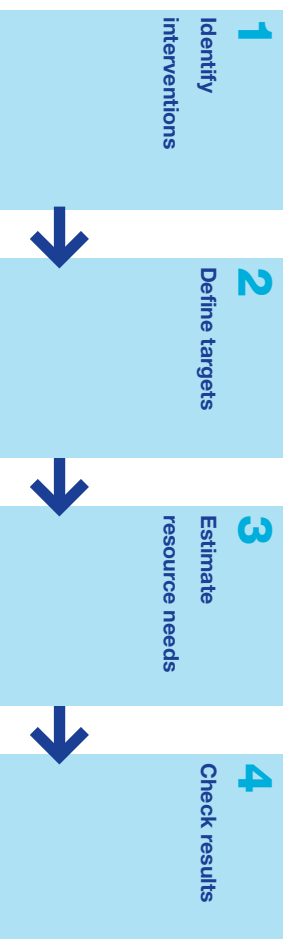
allocation within these investment clusters in a way that reflects their most urgent development needs. The nine MDG clusters are:

1. *Rural development.* Increasing food output and rural incomes.
2. *Urban development.* Promoting jobs, upgrading slums, and developing alternatives to new slum formation.
3. *Health systems.* Ensuring universal access to essential health services
4. *Education.* Ensuring universal primary education and expanded post-primary and higher education.
5. *Gender equality.* Investing to overcome pervasive gender bias.
6. *Environment.* Investing in improved environmental management.
7. *Science, technology, and innovation.* Building national capacities.
8. *Cross-national infrastructure.* Increasing trade integration and government cooperation.
9. *Public sector management.* Strengthening the government’s ability to plan and implement the MDG strategy.

## step 3

### Getting started—parts of a needs assessment

Once the investment clusters are identified, a needs assessment within each of the clusters can be initiated. An MDG needs assessment answers the question of what investments will be required to reach the MDGs. It yields aggregate financial costs but also quantitative estimates of necessary infrastructure (schools, health centers, and roads, for example) and human resources (doctors, teachers, engineers). These estimates will subsequently form the core inputs to a strategy for sequencing and





There are four parts to a needs assessment to answer the question “What investments are needed to achieve the MDGs?”

### **1. Identify interventions**

Interventions, as defined broadly in this handbook, are goods, services, and infrastructure that will enable the country to meet the MDGs. In some cases policies will have significant financial implications (removing school fees, using nurses instead of doctors to administer AIDS treatment), and these impacts should be included in the MDG needs assessment, which may consider

## **Q & A**



## **Q & A**

### **What qualifies as “investment” in the MDGs?**

This handbook refers to one-off capital as well as recurrent expenditures on MDG interventions as “investments” since both build and maintain the human, physical, and natural capital that underpins economic growth and are required to achieve the MDGs. This contrasts with the common government budget definition of investments, which is restricted to investments in physical capital, such as infrastructure and equipment. As described in UN Millennium Project (2005h), such definitions of capital and investment are too narrow for a strategy to achieve the MDGs. In addition to physical capital, countries also need to be empowered to build and maintain human capital (education and health), natural capital (soil fertility, water resources, fisheries, and the like), and other forms of capital. This requires the full range of expenditures identified in MDG needs assessments. For more on capital and recurrent costs, see the Q&A on basic principles of MDG needs assessment (pp. 49–50).

## **step 3**

more than one policy scenario. The discussion in this section covers both policies and investments. To develop a useful framework for national development, countries will want to combine a needs assessment with a detailed analysis of policy options, as described in Step 4. While countries will select the interventions most relevant in their settings, the intervention list should aim to be comprehensive within each investment cluster. In many cases countries will have already elaborated such interventions in their national and sectoral planning documents. For example, education strategic plans will likely include the basic inputs into educating all children, such as schools, equipment, trained teachers, and supportive educational policies. These documents should be a starting place for defining MDG interventions. The UN Millennium Project has drawn up example lists of interventions to reach the MDGs, organized into the investment clusters, to further assist countries in developing their own lists. These are presented in “Tools.”

The intervention lists need to be comprehensive since integrated strategies consisting of complementary and mutually reinforcing interventions are required to meet the MDGs. For example, reducing child mortality by two-thirds will require not only health interventions (such as immunization, oral rehydration therapy, treatment of malaria, and family planning) but also improved access to water supply and sanitation to reduce diarrheal diseases, less indoor air pollution through improved cooking fuels and stoves, and improved gender equality and maternal education. At the same time, many interventions are expected to have effects on several MDGs. For example, dropping school fees to improve education also contributes to reducing income poverty, hunger,

## See also

The reports of the UN Millennium Project and its task forces describe in detail the interventions and policies required to meet each MDG.

Hunger: *Halving Hunger: It Can Be Done* (UN Millennium Project 2005d).

Gender Equality: *Taking Action: Achieving Gender Equality and Empowering Women* (UN Millennium Project 2005k).

Education: *Toward Universal Primary Education: Investments, Incentives, and Institutions* (UN Millennium Project 2005j).

Child Health and Maternal Health: *Who's Got the Power? Transforming Health Systems for Women and Children* (UN Millennium Project 2005n).

Access to Medicines: *Prescription for Healthy Development: Increasing Access to Medicines* (UN Millennium Project 2005).

HIV/AIDS: *Combating AIDS in the Developing World* (UN Millennium Project 2005a).

Malaria: *Coming to Grips with Malaria in the New Millennium* (UN Millennium Project 2005b).

TB: *Investing in Strategies to Reverse the Global Incidence of TB* (UN Millennium Project 2005).

Environmental Sustainability: *Environment and Human Well-Being: A Practical Strategy* (UN Millennium Project 2005g).

Water and Sanitation: *Health, Dignity, and Development: What Will It Take?* (UN Millennium Project 2005e).

Improving the Lives of Slum Dwellers: *A Home in the City* (UN Millennium Project 2005f).

Trade: *Trade for Development* (UN Millennium Project 2005m).

Science, Technology, and Innovation: *Innovation: Applying Knowledge in Development* (UN Millennium Project 2005g).

UN Millennium Project: *Investing in Development: A Practical Plan to Achieve the Millennium Development Goals* (UN Millennium Project 2005n).

Investment needs that are not explicitly addressed in the MDG outcome targets, such as sexual and reproductive health, energy, and transport, are critical to include in investment clusters. For example, countries require a minimum level of transport infrastructure and access to energy services to achieve the sustained economic growth that is necessary for halving poverty and hunger. So, the corresponding interventions have to be included in MDG needs assessments. Similarly, interventions relating to reproductive health are included in the analysis because they are instrumental for meeting many of the other MDGs. As a result, several UN Millennium Project task forces recommend

targets and indicators (see Q&A in Health Systems below).

## 2. Define targets

*Quantify outcome targets.* In many cases the MDGs provide the quantitative basis for national targets (“Reduce maternal mortality by three-quarters”). But to ensure that several MDG targets, such as target 7, “Have halted by 2015 and begun to reverse the spread of HIV/AIDS,” are meaningful national objectives they need to be translated by countries into quantitative national targets to be achieved before 2015.

*Set coverage targets.* While it is often difficult



## Example

### Adolescent fertility—the importance of disaggregating fertility rates by age

Adolescent fertility shapes demographic dynamics, cessation of education, and exposure to health risks. Unmet need for family planning (particularly for birth spacing) is disproportionately high in young populations, so special outreach programs—including reproductive health information and services within broad packages that address life skills, nutrition, safe parenting, and employment and entrepreneurial skills—may be more appropriate to their needs. That makes it important to disaggregate fertility rates in a country by age in order to specifically target interventions to this important group.

of interventions and MDG outcomes, national MDG planning involves mapping interventions to MDG outcomes, setting coverage targets for the delivery of services and provision of infrastructure, and establishing interim milestones to measure progress. To the extent possible, coverage targets can be based on the MDGs or other internationally agreed targets. When no international consensus on targets exists, countries will need to derive targets and key parameters analytically. For example, we propose quantitative targets for primary-school classroom size and pupil-teacher ratios based on best-practice norms established by previous empirical studies.

and sanitation, transport, and energy services. Disaggregation by gender and age will help countries better target services to populations in need and adjust their service delivery to a changing demographic profile (see example).

### 3. Estimate resource needs

The resources required to achieve the MDGs are estimated using an intervention-based needs assessment approach, as described in the annex. This approach is especially appropriate for use in the preparation of MDG-based national development strategies over other methodologies, because it provides guidance on the interventions needed to achieve the MDGs in a specific country, not just the estimated cost of their achievement. Indeed, these methodologies pose different questions, and this approach is best suited to answer, “What investments in infrastructure and financial and human resources are needed to achieve the MDGs?” (see annex).

*Disaggregate targets for different populations.* In many areas targets and their corresponding interventions will need to be disaggregated by age and gender and by urban and rural areas in order to chart a course to MDG outcomes. For example, urban areas often require interventions and technologies that are distinct from those applicable in rural areas. In addition, even where interventions are similar, the resources for delivery tend to differ substantially between urban and rural areas, as do community abilities to contribute to their financing. A clear distinction between urban and rural needs is particularly

*Approach to costing.* MDG needs assessments quantify human resources and infrastructure needs as well as the financial costs of goods and services. This is critical because human resources and infrastructure (such as energy, transport, schools, and clinics) are critical to ambitious

### How can existing costing models be adapted to the MDG approach?

Most governments have sector-specific analytical models (spreadsheet-based) to make projections of budgetary needs. An MDG needs assessment does not require starting from scratch—most of these models and analytical frameworks can be adapted.

Review and adaptation would require:

- *Extending the timeline to 2015.* Most analytical tools are for short-term budgetary projections. To ensure that estimates are consistent with the long-term objective of achieving the MDGs, they will need to be extended to 2015, and targets will need to be revised if necessary. Where countries have already set national targets for shorter timeframes, they can be seen as intermediate objectives and help in planning the pace and sequence of scaling up strategies.
- *Reviewing and modifying target populations.* Where necessary, does the current analysis allow for specifying the target populations that will need to be reached to meet the MDGs (for example, subsistence farmers or women of reproductive age)? If not, analysts will want to adjust the model or determine an alternate solution (such as using several versions of the model for each subset of the population).
- *Reviewing and modifying current interventions.* Not all analytical models are intervention-based. We encourage modifying the models to make them intervention-based to track critical interventions and how they reach the target population over the years. If the models are intervention-based, it will also be important to ensure that the set of interventions are aligned to what is needed to achieve the MDGs.
- *Making cost assumptions.* For ease of verification and revision, it is important that underlying assumptions, such as unit costs, be explicit and alterable.

Examples of existing models include Education for All models, which many governments have used to prepare long-term education strategies. Other examples include existing analytical frameworks for road plans and agricultural plans. In some countries multiple models may coexist for the same sectors—in such cases, we encourage consolidating multiple frameworks into a single broad approach, based on the guiding principles of the MDGs.

Working with existing models and adapting them to the local specifics means that the sector models may end up being very different from the UN Millennium Project needs assessment tools. The exact format of the model is not important as long as the targets, timelines, scaling-up path, and interventions and costs are consistent with reaching the MDGs.



## TIP

### Tips for finding cost data

To best estimate resource requirements it is usually preferable to use local unit costs wherever possible (see also Step 2). Have you checked all possible sources for local unit costs? These sources often include:

- Existing national planning documents and tenders.
- Government, donor, and nongovernmental organization project budgets.
- National expenditure reviews.

And when local unit costs are not available, proxy costs can often be used. For example, proxies can include:

- Costs for similar interventions (for example, the cost of delivering immunizations can be used to estimate the cost of delivering medicines).
- Costs of delivering the same intervention in a neighboring country or region.

These costs will of course be refined and updated as services are rolled out and more accurate information on actual spending becomes available.

investments in these areas will need to begin immediately if they are to yield results by 2015. Decisions on the number of personnel and facilities will also affect costs significantly, so they will also need to be made early in the analysis.

In general, the costs of delivering individual

a farmer, installing a pit latrine in a household) can be calculated with the simple formula:

$$[\text{Population size}] \times [\text{percent of population reached}] \times [\text{number of interventions per person or household}] \times [\text{unit cost of the intervention}]$$

In many areas a needs assessment will also include the system costs of the intervention. These include overhead costs (administration and management) and system maintenance (annual upkeep of water supply and sanitation infrastructure, annual electricity and water costs for hospitals and schools, and so on).

Some interventions, such as a road network or energy services, are implemented on a large scale and for them the total cost of providing the desired coverage in the country (rather than a per capita cost) will be an appropriate calculation for a needs assessment. For example, a country's road plan could derive the length of roads to be built from national access targets to calculate the cost of construction and maintenance.

An MDG needs assessment will cover the period between the starting year (such as 2005) and 2015.

Thus, total resources calculated for the full time period will then need to be divided into annual increments, determined by national priorities and immediate capacity constraints and depending on the scale-up path of the investments. When significant additional infrastructure is needed, this investment path will likely begin with a large initial investment and perhaps tail off as the roads and facilities are built and service delivery costs take over. Where new doctors and nurses need to be trained, the costs of service delivery of more complex health interventions may be low in the

## step 3



## What are some basic principles of an MDG needs assessment?

*Calculate total costs.* Several studies—such as WHO (2001), Delamonica, Mehrotra, and Vandermoortele (2001), and Devarajan, Miller, and Swanson (2002)—focus on the *incremental* resources needed to ensure that countries that meet appropriate economic and political governance standards can meet relevant targets. Instead, the UN Millennium Project recommends estimating the *total* national costs required for meeting the MDGs, including the resources required to sustain current service coverage and infrastructure.

We recommend this approach since total costs can form the basis of an MDG financing strategy. In contrast to the incremental cost approach, which treats current expenditure as fixed, we assume that all investments and service delivery for the MDGs will be made according to best practice. As a result, estimates of resources required to maintain current service and investment levels may differ from actual expenditure. For example, if current government expenditure is inefficient in some dimension, unit costs may be lower than current expenditure would suggest.

*Include capital and recurrent costs.* Public investments in services and infrastructure often focus only on capital expenditures, assuming that users can pay for the operating costs. In low-income countries this approach often does not work since users do not have the financial resources to pay the full operating costs. This is particularly true for education and health, where operating costs make up the majority of total resource needs. Frequently, the lack of sustained funding for operating expenses has been the reason for infrastructure to fall into disrepair and social services to be discontinued. Because of this, full operating costs are an essential element of an MDG needs assessment.

*Estimate financial rather than economic costs.* Financial cost estimates focus on cash flows needed to finance the intervention packages. By contrast, *economic cost* estimates assess the full cost of providing interventions, including noncash components, such as the opportunity cost of time provided by communities. By estimating *financial costs*, MDG needs assessments can be used to project the cash flow required to meet the MDGs. These can then correspond to budgetary outlays or expenditures, laying the ground for aligning public medium-term expenditure frameworks with national MDG strategies. Note that *financial cost* estimates will clearly depend on the model of service delivery in each country.

*Calculate marginal costs where possible.* At the outset, a needs assessment will need to project how marginal costs are likely to evolve over time and with broader coverage. Because these changes are often very hard to predict, it will be important to revisit them frequently to modify



unit costs based on new information. Another very good way to minimize the uncertainty over future marginal costs is to disaggregate target populations based on relative unit costs (such as urban and rural populations, smallholder farmers and pastoralists, and infants and adults) so that average unit costs will change with the coverage mix as interventions are scaled up.

Intuition may suggest that marginal costs will rise with increasing coverage as services are delivered to more difficult-to-reach populations, and this indeed appears to be the case in many sectors, such as education. But in some instances the opposite happens. For example, in South Africa improved technologies, modified standards, and other learning effects have led to a 50 percent reduction in the cost of providing access to electricity to rural households (Stephen and Sokopo 2001). On balance, it can be difficult to predict the direction of change for marginal costs—let alone its magnitude—as coverage increases.

all models can (and should) be adjusted to fit local circumstances. For example, in the Dominican Republic the treatment of dengue fever and cervical cancer was added to the health models.

#### 4. Check results

At the end of a needs assessment analysts will want to review the results to make sure that they are accurate and adequate to reach the MDGs. While every country will do this individually, the UN Millennium Project has carried out preliminary needs assessments in several countries. These results provide some guidance on the order of magnitude of the costs for reaching the MDGs in a subset of low-income countries.

The UN Millennium Project, in cooperation with local partners, has carried out preliminary MDG needs assessments in Bangladesh, Cambodia, Ghana, Tanzania, and Uganda (UN Millennium Project 2004b). The results show that these countries' total MDG investment needs are \$70–\$80 per capita in 2006, rising to \$120–\$160 in 2015 (see table). Underlying these estimates is

new health workers enter the system. (See Step 4 for a more detailed discussion on sequencing investments.) It will also be important to reassess and update unit costs as the interventions are implemented, because they may go up or down with increasing coverage. (This is further discussed in the box on marginal costs.)

The spreadsheet-based models presented later are among the tools available to planners to estimate resources. Where models for calculating resources are available locally, they will often be more appropriate, provided that they are truly outcome based (see Q&A). The models developed by the UN Millennium Project to assist countries are further described in the discussion of cluster areas.

In general, the needs assessment models have an input sheet for local analysts to fill in specific data (such as number of children in and out of school, unit costs for textbooks, teacher salaries, and education targets). An output sheet provides the year-by-year costs of the interventions. Each model has a number of calculation sheets, which



## Illustrative MDG investment needs

### 2003 US dollars per capita

	Bangladesh			Cambodia			Ghana			Tanzania			Uganda		
	2006	2010	2015	2006	2010	2015	2006	2010	2015	2006	2010	2015	2006	2010	2015
<i>MDG investment needs</i>															
Hunger	2	4	8	4	7	13	3	5	12	4	7	14	3	5	10
Education	11	17	25	15	19	22	17	19	22	11	13	17	14	15	17
Gender equality	2	3	3	2	3	3	2	3	3	2	3	3	2	3	3
Health	13	19	30	14	21	32	18	24	34	24	33	48	25	32	44
Water supply and sanitation	4	5	6	3	5	8	6	7	10	4	5	12	2	3	9
Improving the lives of slum dwellers	2	3	4	3	3	4	2	2	3	3	3	4	2	2	3
Energy	20	19	20	9	13	23	13	15	18	14	15	18	6	10	19
Roads	12	21	31	12	21	31	11	10	10	13	21	31	13	20	27
Other	8	9	13	8	9	13	8	9	13	8	9	13	8	9	13
<b>Total</b>	<b>74</b>	<b>100</b>	<b>140</b>	<b>71</b>	<b>101</b>	<b>148</b>	<b>80</b>	<b>94</b>	<b>124</b>	<b>82</b>	<b>111</b>	<b>161</b>	<b>75</b>	<b>100</b>	<b>143</b>

*Note:* Numbers in table may not sum to totals due to rounding. Results describe MDG investment needs excluding expenditures for capacity building.

*Source:* Authors' calculations prepared in collaboration with Bangladesh Institute of Development Studies; Economic Policy Research Center, Uganda; Economic and Social Research Foundation, Tanzania; Institute of Social Statistics and Economic Research, Ghana; and the University of Cambodia.

goes hand in hand with optimizing current public expenditures using best practices. We have added \$8 per capita in 2006 and \$13 in 2015 to account for interventions not originally included in the needs assessments. Additional expenditures, not shown here, will be important for capacity building and for emergency assistance, for example.

A brief summary of the per capita investment needs for the five countries is presented in the table. (All estimates are in 2003 U.S. dollars.) For comparison, countries can translate these figures into their own currency and factor in inflation. This table does not show the financing breakdown (or who will pay for services), which is further discussed in Step 5.

## Launching the analysis—sector methodologies and best practices

The remainder of this section outlines the four key parts in carrying out an MDG needs assessment for each investment cluster: identify interventions, define targets, estimate resource needs, and check results. In each case it describes how the analysis can be adapted to specific country needs. The text lists additional sources of information

and tools available for MDG needs assessments from the UN Millennium Project; UN agencies, funds, and programs; the World Bank; and other sources. The latest information can be found on the UN Millennium Project's website, [www.unmillenniumproject.org](http://www.unmillenniumproject.org).



LAUNCHING THE ANALYSIS



## Rural development—increasing food output and rural income

The global epicenter of extreme poverty today is the smallholder farm. Of the roughly 850 million people living in chronic hunger, half are smallholder farmers. They live in communities that are geographically isolated and burdened by disease, climatic shocks, environmental degradation, and social exclusion and violence. Today most farmers in rural Africa and remote parts of Asia and Latin America are essentially cut off from markets beyond their village. Poor transport services are a major reason for this, particularly in rural Africa.

Beyond improving farmers' incomes, expanding rural infrastructure and enhancing service delivery are also critical for fighting rural poverty, disease, and heavy work burdens, especially for women. Improving access to domestic water supply and sanitation, an important end in itself, is critical for meeting the health, education, gender, environment, and other MDGs, as is better management of water resources.

For these reasons, many countries will need to develop comprehensive strategies for rural development through participatory processes to create a productive rural environment. Indeed, these strategies will contribute to achieving a broad spectrum of MDGs—particularly those for income poverty, hunger, health, and water and sanitation—and will address the cross-cutting needs for infrastructure and services in energy and transport.

We recommend that an MDG needs assessment for rural development strategies comprise at least the following areas: raising agricultural

improving infrastructure services, such as water supply and sanitation, transport, and energy; and strengthening water resources management.

The focus on agricultural productivity stems from the historical experience that a Green Revolution has preceded virtually every economic takeoff in modern history—from Britain's original industrial revolution (preceded by its agricultural revolution) to Asia's boom in the 1970s and onward, fueled by the modern Green Revolution. For this reason the UN Secretary-General has called for a Twenty-first Century African Green Revolution using environmentally sound technologies, recommending that special attention be paid to farming systems in areas largely disconnected from functioning markets, including remote areas of Africa, Asia, and Latin America.

Several policies and interventions, such as building food storage facilities or providing agricultural subsidies, will be important components of a rural development strategy. Policies and interventions will be specific to local conditions, priorities, and investment needs, but we provide below a list of policies and interventions often critical to improving rural environments. Though policies and interventions will often be adopted at the national level, the bulk of strategic decisions, investments, and delivery of key services will likely fall to local authorities and communities. We therefore recommend that these levels of governments cooperate closely in the planning and implementation of the rural development strategy. Government officials will also need to work closely with local communities, civil society organizations, and the private sector to create a more effective



RURAL DEVELOPMENT

## Q&A

### How does the MDG target on hunger get addressed?

Hunger has multiple causes. Depending on the context, it may stem from a lack of adequate food production, of purchasing power to buy adequate quantities of food, or of appropriate nutrients in the food consumed. In most cases it results from a combination of these three drivers. The analysis here focuses on interventions by investment cluster, not by target, so we discuss nutrition interventions under health (though this includes health-related and community nutrition programs as well as emergency food assistance). For actual implementation, a coordinated strategy for addressing hunger and food security is necessary, bringing together agriculture, income-generating activities, and nutrition programs, and emergency food assistance programs.

## Step 3

A frequently asked question is whether the rural development strategies put forth by the UN Millennium Project correspond to the integrated rural development practiced during the 1960s and 1970s. Indeed, this and other investment clusters described later in this handbook build on important elements of integrated rural development with its emphasis on integrated strategies covering agriculture, infrastructure, and social services. However, the strategies incorporate the lessons learned from integrated rural development and go much further. First, they emphasize the critical importance of community participation and leadership in implementing rural development strategies. Second, they draw on the best available science and technologies, where tremendous progress has been made since the early 1980s when integrated rural development was phased out. As a result, a major emphasis is placed on increasing agricultural productivity in ways that minimize the impact on the environment. Finally, as part of a strategy to achieve the MDGs, rural development strategies have clear outcome goals and require a careful tracking of progress.

### Identify interventions

Poverty in most developing countries remains concentrated in rural areas. Since the drivers of rural poverty vary across and often within countries, each country needs to determine the appropriate interventions for a rural development strategy. Many of them will already be elaborated in national rural development documents and national development strategies.

For example, in Sub-Saharan Africa, a large proportion of the rural poor are smallholder farmers, who produce too little food to feed their families adequately. So, interventions to increase

of rural development strategies in that region. In Asia, by contrast, rural poverty is more closely linked to the absence of off-farm income opportunities, so interventions aimed at income generation would be emphasized.

In both cases, it is important to remember that women provide the bulk of the labor in most poor rural households—as farmers and as entrepreneurs. Any set of actions to increase food output and generate incomes would therefore need to be appropriately tailored to ensure that they reach women. In addition, where regional differences are especially significant to rural dynamics, the analysis should be disaggregated by region when possible.

Here is a sample list of core interventions for rural

Identify interventions
Define targets
Estimate resource needs
Check results

these interventions may look like in low-income countries. The UN Millennium Project's full list of recommended interventions is in the annex to this handbook. Some examples of supportive policies are also included for each category of interventions.

### *Agricultural productivity*

To combat hunger, MDG interventions to increase agricultural productivity should focus on food-insecure farmers and include:

- Investments to increase soil health (manure, agroforestry, chemical fertilizers).
- Provision of improved seeds.
- Investments in small-scale water management for agriculture (traditional water harvesting and conservation, pumps, drip irrigation).
- Agriculture and irrigation extension services with a special focus on training women extension workers.
- Research in agriculture.

An appropriate combination of these interventions would allow food-insecure farmers to increase their yield and generate a marketable surplus over the years. We recommend that these interventions be supported by policies allowing for smart subsidies for qualifying food insecure farmers to ensure continued access to key inputs, making sure that these subsidies reach the poorest communities and translate into farm-site investments in soils, water, and other needs—with clear exit strategies as productivity and incomes rise over time.

### *Rural income generation*

Support for off-farm income-generating activities includes the following:

- Increased access to quality financial services,

- Building food storage facilities to reduce post-harvest losses.
- Building market spaces to reduce information asymmetry with buyers.
- Investments to support value added activities, such as food processing technologies.

Policies to encourage income generation would require supporting the development of networks of agro-dealers and regulatory structures that encourage credit and savings facilities in rural areas.

### *Water supply and sanitation*

- Provision and operation of infrastructure for domestic water supply.
- Construction and operation of sanitation facilities, including drainage systems and facilities for disposal of sillage and wastewater.
- Hygiene education, including awareness campaigns in primary schools, through community-based organizations, media, and so on.
- Provision and operation of infrastructure for water supply and sanitation for such institutions as schools and health facilities.

Complementary policies include putting in place community owned and supervised management and maintenance systems, especially for water and sanitation.

### *Water resources infrastructure and*

#### *management*

- Provision and maintenance of water storage and other infrastructure for water management (such as watershed management and water conservation, early warning systems, ground and surface storage systems, and the like).

The interventions need to be supported by policies, such as the upgrading, preparation, and implementation of new or existing plans, systems, and institutions for integrated water resources management, as appropriate. Measures to address the social and environmental issues associated with large-scale infrastructure are also needed.

### *Transport*

- Establishing systems for operating and maintaining bicycles and motorized vehicles to support the provision of essential social services and infrastructure maintenance.
- Upgrading and construction of footpaths, paved secondary, or district roads as well as small paved feeder and community roads.

These interventions will need to be underpinned by supportive policies, such as the deregulation of transport markets, designing institutional structure and funding arrangements for adequate road maintenance, and support to small-scale transport entrepreneurs.

### *Energy*

- Distribution of efficient cooking stoves.
- Distribution of modern fuels for cooking and space heating, including canisters.
- Interventions to reduce the adverse health impacts from cooking with biomass (improved ventilation, chimneys, smokehoods, and behavioral change interventions).
- Interventions to increase sustainable biomass production (agroforestry, woodlots or community forestry, area closures, and so on).
- Provision of diesel generators, hybrid systems, or solar home systems together with necessary wiring to all schools, hospital, clinics, community health centers, and other

- Interventions to facilitate community-level access to electricity and mechanical power through support for electrification, fuel, and mechanical devices for cooperatives, small businesses, and community centers.
- Interventions to facilitate the use of electricity in rural communities that are not connected to the grid, through low-cost technologies such as batteries and charging stations.
- Extension of the electric power grid.

In addition, countries will need to put in place appropriate institutional structures for managing and funding infrastructure maintenance and policies to ensure sustained biomass production (such as by outlining community forest areas).

### **Define targets**

Each country will identify its output targets that link to the MDG targets of halving the proportion of extreme poor, hungry, and people living without access to water supply and sanitation. The UN

Millennium Project proposes the following output targets that countries can adapt and specify to suit their own needs. In many cases, additional country-specific interventions and targets may be required.

### *Agricultural productivity*

- Taking 1990 as the baseline year, enable at least half of the food-insecure subsistence farm households to grow enough food to feed themselves by 2015.

### *Rural income generation*

- Taking 1990 as the baseline year, provide at least half the food-insecure households in rural areas with access to food storage facilities, quality financial services, value added food processing services, and marketing

Identify interventions
Define targets
Estimate resource needs
Check results



### *Water supply and sanitation*

- Taking 1990 as the baseline year, halve the proportion of people in rural areas without sustainable access to safe drinking water by 2015 (MDG target 10), as defined by the Joint Monitoring Programme of the UNICEF and WHO.
- Taking 1990 as the baseline year, halve the proportion of people in rural areas without sustainable access to basic sanitation by 2015 (MDG target 10).

### *Water resources infrastructure and management*

- Start the process of preparing national plans for integrated water resources management by the end of 2005.
- Increase total resilience capacity (through groundwater and surface storage, early warning systems, and other means) to the levels needed to reduce the economic and human losses caused by floods and droughts by 50 percent by 2015.

### *Transport*

- By 2015 establish national systems for providing and maintaining motorbikes or other vehicles in support of key social services and maintenance of infrastructure (such as emergency health transport, community health workers, agricultural extension workers, maintenance of water and energy systems, and the like). Coun-

tries may adopt quantitative targets, such as a minimum of one motorized means of transport for every community healthcare worker, agricultural extension worker, and the like.

- Ensure that 90 percent of the rural population is within 2 kilometers of the nearest motorized pick-up point by 2015.

### *Energy*

- Enable the use of modern fuels and devices for 50 percent of those who at present use traditional biomass for cooking.
- Reach other users of traditional biomass with efforts to develop and adopt the use of improved cookstoves, measures to reduce the adverse health impacts from cooking with biomass, and measures to increase sustainable biomass production.
- Ensure by 2008 that all schools, clinics, hospitals, and community health centers have access to electricity.
- Provide access to modern energy services at the community level for all rural communities (in the form of electricity and mechanical power). This includes providing a minimum number of rural cooperatives, small businesses, and other community centers with adequate sources of electricity and mechanical power and supplying a minimum number of households in off-grid communities with low-cost technologies such as batteries.



## RURAL DEVELOPMENT

### See also

United Nations Development Programme, UN Millennium Project, World Bank, 2005. "Energy Services for the Millennium Development Goals." New York. [www.unmillenniumproject.org].

Identify interventions
Define targets
Estimate resource needs

### Estimate resource needs

The UN Millennium Project has created needs assessment tools (in most cases, spreadsheet-

the interventions described above. Each set of spreadsheets can and should be tailored to account for locally specific interventions in each country.

Millennium Project's needs assessment tools related to rural development.

### *Agricultural productivity and rural income generation*

The spreadsheet-based model analyzes the resources required for interventions in agricultural productivity and rural income generation (the model also covers nutrition interventions, discussed here under the health cluster). For agriculture, the target groups are food insecure rural households; input quantities are based on crop yield quantity targets per hectare. The tool assumes a default target of tripling crop yields from one to three tons per hectare of maize, but these targets will change based on crop type, farmer type, and region.

In each of these sections, the user specifies

1. Current and target coverage for each type of food-insecure rural household (smallholder farms, pastoralists, rural landless households) to be reached annually leading to 2015 targets.
2. Key characteristics of households (for example, average land holding, family size).
3. The input quantities for interventions for agricultural production, based on amounts needed to increase yield per hectare.
4. The mix of interventions for each type of household—by percentage of the target population reached by each intervention.
5. Unit costs of providing interventions.

Using these inputs, the needs assessment tool for agricultural productivity, and rural income generation allows the user to quantify:

1. Human resources (professional extension workers, master farmers, staff for providing other services such as credit, agro processing, and the like) needed to achieve the targets.
2. Physical infrastructure and recurrent inputs (fertilizer, small-scale water management technologies, and the like) needed to achieve the targets.
3. Capital and recurrent costs per year of providing the specified package of interventions.
4. Per capita and total costs of providing and maintaining interventions, both yearly and in total.
5. Number of incremental and total numbers of households reached by interventions every year.

### **See also**

UN Millennium Project. 2004. "Millennium Development Goals Needs Assessments for Ghana, Tanzania and Uganda." Background paper to Sachs and others. 2004, "Ending Africa's Poverty Trap," *Brookings Papers on Economic Activity* 1: 117–216 [www.unmillenniumproject.org].

Sample spreadsheets in "Tools" (pp. 176–79).

### *Water supply and sanitation*

The water supply and sanitation costing estimates resource needs for access to water supply, access to sanitation, hygiene education, and wastewater disposal.

In the water supply and sanitation section, the user specifies:

1. Current and target coverage for each technology options for water (such as boreholes, dug wells, and household

- connections) and sanitation (such as septic tanks, ventilated improved pit latrines, simple pit latrines).
2. Percentage of existing but defective infrastructure of each type.
  3. Unit costs of providing the interventions.
- In the hygiene education section the user specifies the number of students to be reached with in-school education and the number of mass media campaigns to be undertaken each year.
- Using these inputs, the tool allows the user to calculate:
1. Physical infrastructure needed to achieve the targets.
  2. Resources needed for upgrading and maintenance.
  3. Per capita and total costs of providing interventions, both yearly and in total.
  4. Number of yearly incremental and total numbers of households reached by interventions.

### See also

- UN Millennium Project. 2004. "Millennium Development Goals Needs Assessments for Ghana, Tanzania, and Uganda." Background paper to Sachs and others, 2004, "Ending Africa's Poverty Trap," *Brookings Papers on Economic Activity* 1: 117–216 [www.unmillenniumproject.org].
- UN Millennium Project. 2004. "Needs Assessment Models and User Guides: Hunger." New York. [www.unmillenniumproject.org].
- UN Millennium Project. 2004. "Needs Assessment Models and User Guides: Water and Sanitation." New York. [www.unmillenniumproject.org].
- Sample spreadsheets in Tools (pp. 176–79).

### *Water resources infrastructure and management*

Countries' needs for improving water resources infrastructure and management vary tremendously and therefore cannot be analyzed using a standardized investment model. As part of their needs assessments, countries can estimate their needs in terms of water management for agriculture (irrigation, water harvesting, water storage), hydropower, flood and drought management, and control of desertification. The investment needs and supporting strategies for integrated water resources management are highly site specific and should be evaluated on a case-by-case basis.

### *Energy*

The energy model calculates resource needs for energy interventions that reach rural households as well as schools and health facilities.

The user specifies:

1. Current and target coverage for cooking, space heating, and motive power using MDG-compatible fuels and devices .
2. Minimum cooking fuel and electricity consumption requirements to meet the MDGs.
3. Complementary infrastructure and services necessary for delivering interventions (such as grid extension, fuel delivery, and cooking stoves).
4. Unit costs for each intervention.

Using these inputs, the tool allows the user to calculate:

1. Number of households, schools, and health facilities with access to MDG-compatible energy services.
2. Physical infrastructure and fuel inputs needed to achieve the targets.
3. Resources needed for upgrading and maintenance.
4. Per capita and total costs of providing interventions.

### See also

UN Millennium Project. Forthcoming. "Needs Assessment Models and User Guides: Energy." New York. [www.unmillenniumproject.org].

Sample spreadsheets in "Tools" (pp. 176–79).

### Transport

Resource needs for rural transport can be split into transport services and transport infrastructure. For transport service countries can estimate the cost of setting up, operating, and maintaining an integrated fleet of vehicles to provide key social services and infrastructure maintenance. For example, Riders for Health, a nongovernmental organization that focuses on the development of transport solutions, has developed a model to estimate the cost of setting up and maintaining fleets of vehicles for health services and other needs (more information can be found at [www.riders.org](http://www.riders.org)).

In addition, most countries will need to reform transport sector policies to increase access to cost-effective vehicles for private use. Where possible, the financial impact of these policies should be included in the needs assessment.

Resource needs for rural transport infrastructure can be estimated by multiplying the length of feeder, district, and national roads that need to be constructed, rehabilitated, and maintained to meet the MDGs by per kilometer costs. To this end countries can carry out an inventory of existing road stock to ascertain the need for rehabilitation and regular maintenance, and then calculate the length of additional roads needed to meet the access targets.

One approach is to identify the maximum distance from a paved road that allows adequate access to transport services. For example, it may not be possible to transport women experiencing complications during childbirth over more than 2 kilometers without motorized transport. Hence countries may establish as an objective that each village have access to a paved road within a 2 kilometer radius. On this basis countries can establish needed investments for expanding the road network.

### See also

UN Millennium Project. 2004. "Needs Assessment Models and User Guides." New York. [www.unmillenniumproject.org].

For more information on the cost of setting up vehicle fleets, see [www.riders.org](http://www.riders.org).

Sample spreadsheets in "Tools" (pp. 176–79).

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Sample results for two sets of rural development interventions for Uganda and Ethiopia are presented below. Per capita MDG investment needs for rural development are remarkably similar across countries, providing some convenient shorthand for assessing whether needs assessment results are consistent with the MDGs. The costs of agricultural productivity and rural income generation are about \$2–\$4 per capita for 2006 (rising to \$8–\$14 per capita per year by 2015), and rural water supply and

sanitation costs are about \$0.50–\$1.50 per capita for 2006 (rising to \$2–\$4 per capita by 2015). While detailed country-level MDG needs assessments for transport are not available, preliminary estimates suggest that investments in rural transport infrastructure may be around \$10 per capita in 2006 (rising to \$20–\$30 per capita by 2015 in countries with poor infrastructure). These estimates do not include investments in rural transport services.

See also UN Millennium Project. 2005. *Investing in Development: A Practical Plan to Achieve the Millennium Development Goals*. London: Earthscan.

Estimated costs of agricultural productivity interventions in Uganda

2000 U.S. dollars					
	2006	2010	2015	Total 2006–15	Average 2006–15
Capital costs	1	3	14 (8)	46 (5)	5
Operating costs	44	71	153 (92)	849 (95)	85
Total	45	73	167	896	90
Per capita	1.57	2.21	4.25		2.67

Note: Numbers in parentheses are share of total.  
Source: Authors' calculations.

## Estimated costs of water supply and sanitation interventions in Ethiopia

2000 U.S. dollars

Component	2006	2010	2015	Total 2006-15	Average 2006-15
<i>Total cost (millions)</i>					
Water provision	27.6	23.2	39.0	290.4	26.4
Capital cost	4.6	4.6	4.6	61.0	5.5
Operating cost	23.0	18.6	34.4	229.5	20.9
Sanitation	7.0	23.1	299.6	720.4	65.5
Capital cost	5.9	19.4	267.0	631.8	57.4
Operating cost	1.1	3.7	32.6	88.6	8.1
Hygiene education (aggregate national)	0.7	1.6	12.0	34.4	3.1
Total	35.3	47.9	350.6	1,045.2	95.0

Component	2006	2010	2015	Average 2006-15
<i>Total cost per capita</i>				
Water provision	0.36	0.28	0.42	0.32
Capital cost	0.06	0.06	0.05	0.07
Operating cost	0.30	0.22	0.37	0.25
Sanitation	0.09	0.28	3.19	0.78
Capital cost	0.08	0.23	2.84	0.69
Operating cost	0.01	0.04	0.35	0.10
Hygiene education (aggregate national)	0.01	0.02	0.13	0.04
Total	0.46	0.56	3.61	1.10

## Urban development—promoting jobs, upgrading slums, and developing alternatives to new slum formation

In developing countries around the world cities are struggling to function. They are home to rising numbers of extreme poor and do not create the jobs that are necessary to achieve growth and meet the MDGs. In the face of the rapid urbanization experienced by most developing countries, these challenges are only going to become more acute unless corrective action is taken. Since the urban economy is an important center of gravity of economic life and the focus of technological advance and specialization, making cities work will also benefit rural areas tremendously.

For these reasons, countries with slum populations need to develop strategies for urban development through participatory processes in order to create a productive urban environment, foster private sector development, improve the lives of slum dwellers, and provide alternatives to the formation of new slums. These strategies will help to meet the full range of MDGs, particularly those on poverty, hunger, health, water and sanitation, and improving the lives of slum dwellers. They will also address the cross-cutting needs for infrastructure and services in energy, transport, and the financial services sector, including microfinance.

Several policies and interventions, such as changes to the land tenure regime, are adopted at the national level, but the bulk of strategic decisions, investments, and delivery of key services fall under the responsibility of local authorities. For example, land tenure reform legislation may need to be adopted by national legislatures, while private sector development strategies involving tax concessions and grants may need to be granted by

airport construction may be the purview of national ministries of transport, while public transportation networks may be run by local authorities or utilities.

A key to sustainable urban development strategies is for city governments to work in close partnership with organizations of the urban poor as well as the domestic formal and informal private sector. To do this, they need the policy autonomy and financial independence to design and implement citywide urban development strategies in support of the MDGs.

The City Development Strategies promoted by the Cities Alliance are a good framework for such “localized” MDG strategies (see [www.citiesalliance.org](http://www.citiesalliance.org) for more details). Since most local authorities in the developing world lack the resources and capacity to implement such strategies, national development strategies will often need to strengthen local authorities that are directly accountable to urban communities. We return to the question of how countries can differentiate between the responsibilities of national and local governments in Step 4.

We recommend that an MDG needs assessment for urban development strategies comprise at least six components: slum upgrading and providing alternatives to slum formation through assisted self-help housing and urban planning; domestic water supply, sanitation, and urban water resources management and infrastructure (including storm drainage and wastewater treatment); transport of people and goods; energy; other urban services (for example, policing, fire protection, solid waste disposal); and investments in private sector development including



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For each set of infrastructure investments, countries need to carefully consider the choice of appropriate technology standards, which are a substantial driver of cost. For example, costs of slum upgrading can vary by a factor of five depending on the standards used (Banes and others 1996). This choice needs to be made locally on the basis of community preferences, ability to pay, available financing, and population density.

Policies and institutional reforms, such as the reform of land tenure systems and practice, are particularly important for the urban development investment cluster. We highlight some important policies below to be carefully reviewed and developed following the completion of the MDG needs assessment.

### Identify interventions

Below is a summary list of recommended interventions for urban development. We emphasize that this list of interventions is not a blueprint since the needs of cities vary tremendously. Therefore each city and country will need to select, adapt, and add interventions most suitable to the specific needs. A full menu of interventions for this investment cluster is listed in the annex of this handbook.

#### *Slum upgrading and providing alternatives to slum formation*

- Purchase or provision of land where necessary.
- Support for incremental improvements to and construction of new housing.
- Negotiated relocation of slum dwellers where absolutely necessary.
- Development of accessible, well located, and integrated new settlement areas, including designation of plots and provision of trunk

- Creation of secondary financing market for housing improvements.

Many policies and institutional reforms are critical for slum upgrading and providing alternatives to slum formation. Important examples for improving the security of tenure include legislation against forced eviction, legitimizing occupancy, granting title, or strengthening the rights of tenants in renters markets; legal protection and enforcement of slum dwellers' rights; zoning laws and urban planning; and strengthening of land management systems and institutions charged with improving the security of tenure. (Investments in infrastructure and urban services, which form an integral part of successful slum upgrading, are discussed separately below.)

#### *Water supply and sanitation*

- Provision and operation of infrastructure for water supply (such as household connections, standpipes, or boreholes), including water treatment as necessary.
- Maintenance and extension of trunk infrastructure for urban water supply, including intake works, treatment facilities, and reservoirs.
- Construction and operation of private sanitation facilities (simple pit latrines, ventilated improved pit latrines, septic tanks, flush toilets, and the like) and public sewers, including emptying of pits and safe disposal of sullage.
- Construction and operation of simple sewage and other wastewater treatment facilities (such as waste stabilization ponds or other forms of treatment) where needed to meet specific environmental concerns (such as pollution abatement and eutrophication of freshwater lakes).
- Support for a program of public education around

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In addition to these direct interventions, tariff systems and utilities may need to be reformed to improve service delivery.

#### *Urban water resources management and infrastructure*

- Urban flood management.
- Watershed protection.
- Storm water drainage.
- Systems and institutions for integrated water resources management.

#### *Transport*

- Infrastructure for mass transport (for example, bus lanes for rapid bus transit where appropriate).
- Upgrading, construction, and maintenance of urban roads and footpaths, including curbing, streetlights, and other interventions to improve both road and pedestrian safety and reduce the number of road accidents and pedestrian deaths.
- Operation of transport services for emergency healthcare and other critical social services.

Policies are also needed to promote urban transport. Examples include the promotion of urban mass transport services through public investments or deregulation of the transport market to lower the cost of motorized and nonmotorized vehicles.

#### *Energy*

- Support the use of modern cooking fuels, such as liquid petroleum gas and kerosene, and modern cooking devices, such as stoves and canisters.
- Interventions to reduce the adverse health impacts from cooking with biomass (improved ventilation, chimneys, smokehoods, and

- Interventions to ensure access to reliable electricity and motive power for urban areas (through, for example, grid extension, lifeline tariffs, and the like).

- Electrification of all schools, hospital, clinics, community health centers, and other community facilities.
- Financing mechanisms to spread out the capital cost of electricity connections, infrastructure for fuel supply, and devices.
- Bill collection and monitoring interventions (such as smart cards and personnel).

In addition to these direct interventions, tariff systems and utilities may need to be reformed to improve service delivery.

#### *Urban services*

- Investing in human resources of local authorities, their management systems, and equipment to strengthen urban planning.
- Planning of urban infrastructure (roads, footpaths, sidewalks, streetlights, stormwater drainage, bus lanes, and other transport infrastructure).
- Provision of basic services (such as refuse collection and solid waste disposal, policing and security, and fire protection).

#### *Urban private sector development*

- Provision of physical infrastructure to support the development of manufacturing and service industries, including the establishment of export processing zones, industrial parks, and other designated areas for private sector development.
- Promotion of an enabling environment for the informal sector, including the provision of adequate sites for production and marketing.

Improved policies are critical to stimulate

sound business code, to provide a supportive environment for private sector development, and industrial promotion policies, including tax concessions and grants, which fall within a larger vision of private sector growth at the metropolitan, regional, or national levels. Local authorities and national governments may need to collaborate to improve access to quality financial services, in particular microfinance, including deposits, credit, insurance, and money transfer mechanisms for micro, small, and medium-size enterprises. Similarly, regulatory changes can promote urban and periurban food production, particularly of root and tuber crops, bananas, fruit trees, vegetables, and small-scale livestock. Finally, city authorities may join metropolitan, regional, and national networks to strengthen cooperation in their efforts to attract investment.

### Define targets

To create an operational urban strategy, a country and municipality needs to translate national MDG targets on poverty, hunger, water supply and sanitation, and improving the lives of slum dwellers into tangible city targets to be achieved through the MDG-based urban development strategy. The following targets are based on experiences from around the world and may inform the choice of national targets:

### Slum upgrading and providing alternatives to slum formation

Target 11 calls for significantly improving the lives of at least 100 million slum dwellers globally by 2020. As shown by the UN Millennium Project Task Force on Improving the Lives of Slum Dwellers, countries also need to provide alternatives to the formation of new slums if the other MDGs are to be achieved. Consistent with the targets adopted in the Cities without Slums Action Plan (Cities Alliance 1999), the formation of new slums should be avoided through urban planning by 2006, through the adoption of forward-looking inclusive policies and investment strategies.

To translate these global targets into national objectives, a country can calculate its share of the global number of slum dwellers and multiply this percentage by 100 million slum dwellers. To set a target for “halting the formation of new slums,” countries can estimate how many potential slum dwellers would need to be provided with decent housing as well as access to social services and basic infrastructure. One way to estimate this number is to assume that the proportion of slum dwellers as a share of the total urban population would, under a “business as usual” scenario, remain constant until 2020. Thus, the number of potential slum inhabitants will rise with urban population

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### See also

United Nations Development Programme. 2004. “Unleashing Entrepreneurship: Making Business Work for the Poor.” Report of the Commission on the Private Sector and Development to the UN Secretary-General. New York.

UN Millennium Project. 2005. *Investing in Development: A Practical Plan to Achieve the MDGs*. London: Earthscan. [www.unmillenniumproject.org].

World Bank. 2002. *A Sourcebook for Poverty Reduction Strategies*. Washington, D.C. [www.worldbank.org/poverty/strategies/sourctoc.html].

World Bank. 2004. *World Development Report 2005: A Better Investment Climate for Everyone*. New York: Oxford University Press.

growth. The country example demonstrates this approach for Tanzania. An alternative method could be for a country to set its own target by taking 1990 as a baseline, and then striving to halve the number of slum dwellers by 2020.

by 2015 (MDG target 10), aiming to completely end the practice of open defecation in cities.

#### *Urban water resources management and infrastructure*

The UN Millennium Project Task Force on Improving the Lives of Slum Dwellers recommends that as part of meeting target 11 countries need to provide effective alternatives to slum formation starting in 2006 (UN Millennium Project 2005f). On the current trajectory more than 11 million additional people are projected to live in slum-like conditions by 2020 in Tanzania (based on data from UN Population Division 2003 and assuming that the share of slum dwellers in the total urban population remains constant). Hence to meet the second part of the target, Tanzania will need to ensure that an additional 11 million people have access to basic housing, services, and infrastructure.

- Increase total resilience capacity (through groundwater and surface storage, early warning systems, and other means) to the levels needed to reduce the economic and human losses caused by floods and droughts by 50 percent by 2015.
- Ensure that by 2015 all urban settlements are provided with adequate storm water drainage.

#### *Transport*

In the absence of an internationally agreed target for urban transport, cities need to establish their own benchmarks. To accommodate future growth and provide alternatives to future slum formation as recommended by the Task Force on Improving the Lives of Slum Dwellers (UN Millennium Project 2005f), these targets must be developed in the context of a land use plan for the growth and development of the metropolitan region. Possible examples include:

- *Water supply and sanitation*
  - Taking 1990 as the baseline year, halve the proportion of people in urban areas without sustainable access to safe drinking water by 2015 (MDG target 10), as defined by the joint Monitoring Programme of UNICEF and WHO.
  - Taking 1990 as the baseline year, halve the proportion of people in urban areas without sustainable access to basic sanitation
- Ensure that by 2015 all formal and informal settlements within a city are accessible by paved roads and footpaths. All roads within settlements should be paved, curbed, and fitted with streetlights where necessary.



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### Country example

#### **Translating target 11 in Tanzania**

According to UN-HABITAT (2003), Tanzania accounts for 1.2 percent of the estimated 870 million people living in slums across the developing world. Applying this share to the global target of improving the lives of 100 million people by 2020 implies that to meet the target, Tanzania would need to improve the lives of 1.2 million slum dwellers through slum upgrading.

- Ensure that by 2015 all settlements in a city are reached by reliable means of mass transit, such as buses.
  - Ensure that by 2015 (or earlier) all residents in formal and informal settlements have access to adequate transport services to access emergency healthcare, including obstetric care.
- As necessary, ensure that airports and ports work effectively and have adequate capacity to meet the transport needs of the city and surrounding areas.

- Energy**
- In the absence of an international target for energy services, the following targets are proposed:
- By 2015 ensure reliable access to modern energy services (including electricity services and improved fuels and devices) to all households.
  - By 2015 ensure reliable access to electricity, improved fuels, and devices for all schools, hospitals, clinics, and community health centers.

### See also

United Nations Development Programme, UN Millennium Project, World Bank. Forthcoming. "Energy Services for the Millennium Development Goals." New York. [www.unmillenniumproject.org].

### Urban services

- Ensure that by 2015 all settlements within the perimeter of the city are served by adequately staffed, trained, and paid police and fire protection services.
- By 2015 ensure that all solid waste is collected and disposed of in technically sound landfills.
- By 2015 ensure that half of all urban households have access to quality microcredit and other financial services, including savings, credit, insurance, and transfer of remittances.

### Urban private sector development

- Ensure that in addition to sound policies, the private sector has access to adequate infrastructure, including industry and science parks, export processing zones, or other areas that are specially designated and fitted for formal and informal private sector activities.
- Ensure that the formal and informal private sector has access to microfinance and other

### Estimate resource needs

In contrast to most rural areas in poor countries urban households and the private sector can often mobilize significant resources—particularly if microcredit and formal loans are made available and affordable on a commercial basis. Where possible, therefore, needs assessments for the urban investment cluster should ensure that possible contributions from households and the private sector are adequately captured in the financing analysis (Step 5).

### Slum upgrading and providing alternatives to slum formation

- Using a simple set of spreadsheets developed by the UN Millennium Project, users can estimate:
- The cost of upgrading slums and preventing the formation of new slums through transfers of land, improved security of tenure, relocation, capacity building, and construction of basic housing, trunk infrastructure, and community facilities.

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- Needed investments in revolving loans to leverage resources from the slum dwellers.

### *Water supply and sanitation*

In addition to the calculations outlined above under rural development, the model for estimating resource needs for water supply and sanitation in urban areas includes investments in wastewater treatment. The model assumes that public sanitation infrastructure will also serve as storm drainage. The user should specify any additional investments in storm drainage that may be needed.

In the wastewater treatment section the user specifies:

1. Current percentage of sewer-d connections fitted with wastewater treatment (including primary, secondary, and advanced treatment).
2. Percentage of new sewer-d connections fitted with wastewater treatment each year.
3. Percentage of existing sewer-d connections newly fitted with treatment.
4. Unit capital, maintenance, and operating costs of providing the interventions.

Using these inputs, the model allows the user to calculate the following for primary, secondary, and advanced wastewater treatment:

1. Physical infrastructure needed.
2. Resources needed for upgrading and maintenance.
3. Per capita and total costs of providing interventions, both yearly and in total.
4. Yearly incremental and cumulative number of new and existing sewer-d connections fitted with wastewater treatment.



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### See also

UN Millennium Project. 2004. "Needs Assessment Models and User Guides: Water and Sanitation." New York. [www.unmillenniumproject.org].

Sample spreadsheets in "Tools" (pp. 176–79).

### *Urban water resources management and infrastructure*

As in rural areas, urban needs for improving water resources infrastructure and management vary tremendously across countries and therefore cannot be analyzed using a standardized investment model. Corresponding investment needs are highly site specific and need to be evaluated on a case-by-case basis through detailed project studies.

### *Transport*

As part of an assessment of transport investments, countries will want to estimate needed investments in both transport infrastructure

the public co-financing of rolling stock and the operation of mass transport services. In many instances important investments will be required to strengthen institutions charged with managing urban transport services. To the extent possible, investments in human resources and equipment need to be quantified as part of an MDG needs assessment. Several models exist that could be adapted to estimate investment needs in urban transport to achieve the MDGs.

### *Energy*

The energy needs assessment model calculates resource needs for energy interventions reaching



The user specifies:

1. Current and target coverage for MDG-compatible cooking and space heating.
  2. Minimum fuel and electricity consumption requirements to meet the MDGs.
  3. Complementary infrastructure and services necessary for delivering interventions (such as grid extension, fuel delivery, and household devices).
  4. Unit costs of providing the interventions.
1. Using these inputs, the costing model allows the user to calculate:
    1. Number of households and institutions with access to MDG-compatible energy services.
    2. Physical infrastructure and fuel inputs needed to achieve the targets.
    3. Resources needed for upgrading and maintenance.
    4. Per capita and total costs of providing interventions.

### See also

UN Millennium Project. Forthcoming. "Needs Assessment Models and User Guides: Energy." New York. [\[www.unmillenniumproject.org\]](http://www.unmillenniumproject.org).

Sample spreadsheets in "Tools" (pp. 176–79).

### Urban services

The UN Millennium Project is not aware of existing needs assessment models for essential urban services. In the absence of a comprehensive model, analysts can make separate estimates for each service they have identified, including needed investments in infrastructure, such as technically sound landfills and police stations, as well as operating expenditures, such as salaries and equipment. Because operating expenditures depend on the type of service delivery (municipal services or community-operated services), details will need to be worked out for each municipality. Of particular importance is a detailed assessment of the human resources requirements for urban services so that adequate training of new staff can be planned in advance. Many cities use standardized population ratios to estimate the number of police officers, fire fighters, and other service providers required to ensure adequate services coverage.

### Urban private sector development

Because investments are likely to vary by city, countries should, to the extent possible, make separate estimates of resource needs for promoting private sector development for each urban area. As appropriate, these may include the public investments required to establish industrial parks or export processing zones—including the cost of investments in core infrastructure to support these zones, such as energy, transport, and water supply and sanitation. There may also be a need to quantify investments in promotional activities to attract foreign direct investment, including the granting of special tax credits and incentives; to establish stable and secure banking and other financial institutions; and to support the informal private sector by establishing a supportive regulatory environment and providing access to well located sites for production, distribution, and selling.



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Check results

Some sample results for sets of urban interventions are presented below. The slum upgrading interventions are shown to 2020, the MDG target year. Slum upgrading interventions are reported on a per beneficiary basis (that is, divided by the number of current and potential slum dwellers reached), whereas water supply and sanitation

and energy interventions are reported on a per capita basis (that is, divided by the entire national population) and will be lower for countries with smaller urban populations.

Detailed results for transport, urban services, and private sector development are not available.

Estimated cost of upgrading slums, by region

U.S. dollars per beneficiary						
Component	Arab states, Turkey, and Iran	East Asia (including China) and Oceania	Latin America and the Caribbean	South Central Asia	Southeast Asia	Sub-Saharan Africa, Egypt, and Sudan
Construction of basic housing	472	338	488	306	324	125
Purchase of land or transfer	80	38	7	32	34	14
Relocation	55	20	27	11	15	14
Provision of bulk infrastructure	71	15	71	15	15	44
Construction of community facilities	15	10	15	10	10	10
Planning and oversight	268	81	230	121	126	117
Capacity building	121	56	109	56	58	48
Total	1,082	558	947	551	582	372



Estimated cost of preventing slum formation, by region

U.S. dollars per beneficiary								
Component	Latin America and the Caribbean				South Central Asia		Sub-Saharan Africa	
	East Asia	Caribbean	North Africa	Oceania	Asia	Southeast Asia	Africa	Western Asia
Land	50	97	105	50	43	45	18	105
Bulk infrastructure	17	92	80	17	17	17	49	80
Housing	169	195	292	169	131	200	77	292
Community development	30	71	75	30	26	33	32	75
Total	266	455	552	266	271	295	176	552

## Estimated resource needs and financing capacity for upgrading slums and preventing slum formation in Tanzania

U.S. dollars unless otherwise indicated

	2006	2010	2015	2020
<i>Upgrading slums</i>				
Number of slum dwellers targeted for upgrading each year, 2006–20 <sup>a</sup> (thousands)	50.9	72.4	112.5	174.8
Public financing (60%) (millions)	11.3	12.6	16.3	31.4
Contributions of slum dwellers through revolving loans (30%) (millions)	5.7	8.1	12.5	19.5
Direct contributions of slum dwellers (10%) (millions)	1.9	6.2	12.9	14.0
Total annual cost (\$372 per beneficiary) (millions)	18.9	26.9	41.7	64.9
Public financing per capita	0.3	0.3	0.4	0.6
Public financing per urban resident	0.8	0.7	0.8	1.3
<i>Preventing slum formation</i>				
Number of potential slum dwellers targeted for prevention each year, 2006–20 <sup>b</sup> (thousands)	315.0	448.1	696.2	1,081.7
Public financing (60%) (millions)	49.9	60.7	84.6	131.4
Contributions of slum dwellers through revolving loans (30%) (millions)	16.6	23.7	36.8	57.1
Direct contributions of slum dwellers (10%) (millions)	5.5	7.9	12.3	19.0
Total annual cost (\$176 per beneficiary) (millions)	55.4	78.9	122.5	190.4
Public financing per capita	1.3	1.5	1.8	2.6
Public financing per urban resident	3.3	3.4	4.0	5.4
<i>Upgrading slums and preventing slum formation</i>				
Total number of slum dwellers' and potential slum dwellers' lives improved (thousands)	365.9	520.6	808.8	1,256.5
Total public investment (millions)	61.2	73.3	100.9	162.9
Total public investment per capita	1.6	1.8	2.2	3.3
Total public investment per urban resident	4.1	4.2	4.8	6.6

a. The sum of the annual beneficiaries for 2006–20 (1.5 million) equals Tanzania's share of the 100 million slum dwellers targeted for upgrading worldwide.

b. The sum of the annual beneficiaries for 2006–20 (9.4 million) equals the predicted increase in slum population over the period.

## Health systems—ensuring universal access to essential health services

While Goals 4, 5, and 6 address health most directly, good health is a prerequisite for meeting all the MDGs. Health is also a fundamental human right, and the UN Millennium Project considers universal access to high quality essential health services to be a basic requirement for meeting all the MDGs.

To be scalable and sustainable to 2015 and beyond, it is commonly recognized that health services need to be delivered through functioning health systems rather than through single-disease, vertical interventions. A health system, defined by the WHO as “all the activities whose primary purpose is to promote, restore, or maintain health,” includes interventions in the household and community and the outreach that supports them, as well as the facility-based system (both public and private) and all categories of providers (WHO 2000, p. 5).

Strong health systems are not only fundamental for achieving the MDGs, but through equitable provision of services, they can increase social capital within the community and fulfill the rights of individuals. The needs assessment below thus focuses on assessing the resources needed for an integrated district health system centered on primary care through to the first level referral hospital. Countries should also be empowered to include community-based education and care in a health needs assessment, because they are central to health promotion and disease control.

Human resources for health are an important foundation for a health needs assessment. The shortage of a trained health workforce, which has been decimated by chronic underfunding and more recently by HIV/AIDS, is a critical constraint to scaling up health services and requires significant investments in salaries and education and supportive policies.

Investments in health services will need to be complemented by supportive policies. Experience has shown that policies for human resources that align the training, deployment, supervision, and empowerment of specific cadres of health workers with national requirements are critically needed. Community health workers can play a vital role in filling human resources gaps.

Improving management of health systems will require an institutional framework for planning, program implementation, financial management, and monitoring and evaluation. Policies will also be crucial for reducing access barriers, especially for the poor. These include the elimination of user fees for basic health services as well as community education and involvement in health system decisionmaking.

Policies outside the health sector are also critical—as illustrated by the cross-sectoral nature of the AIDS epidemic. Broad legislative reforms to strengthen the status of women and prevent discrimination against those with HIV and groups vulnerable to HIV are needed alongside training and sensitization of the civil service, including the army and police.



HEALTH SYSTEMS

## Identify interventions

Below is the summary of an essential health package for the MDGs. The interventions are divided among services that address the MDG targets for child health, maternal health, HIV/AIDS, TB, malaria, nutrition, and access to essential medicines, as well as required health systems investments.

It is important to see these interventions not as isolated programs but as an integrated set of health services provided through a strengthened system of health care delivery. Other interventions crucial to achieving the health MDGs but not delivered through the health system, such as water and sanitation services, girls' education, and indoor air pollution control, are discussed in other parts of this section. These interventions are based largely on international consensus and the latest guidelines from UN and other agencies (for example, WHO and UNICEF guidelines on integrated management of childhood illness, the WHO's Safe Motherhood initiative, Stop TB on TB strategy, and so on) as well as on the recommendations of the UN Millennium Project task forces.

### Health systems

- Human resources training (pre-service, in-service) and salary enhancement.
- Improving and building infrastructure.
- Improving management capacity.
- Enhancing monitoring, evaluation, and quality assurance.
- Strengthening medical information systems.
- Enhancing community demand for health services (community mobilization and education).
- Building basic capacity for research and

### Child health

- Neonatal integrated package (for example, warming, breastfeeding, resuscitation, antibiotics for infection).
- Integrated management of childhood illness (for example, treatment and prevention of acute respiratory infections, diarrhea and dehydration, meningitis and sepsis, malaria, measles, malnutrition, anemia, and ear infection in children under age 5).
- Family planning for satisfaction of birth spacing desires.
- Immunization.

### Maternal health

- Emergency obstetric care (basic and comprehensive).
- Skilled attendance, safe delivery, and postpartum care.
- Antenatal care.
- Post-abortion care and, when permitted by law, safe abortion services.

### Sexual and reproductive health (not included in the gender equality investment cluster)

- Range of choice in family planning methods with appropriate counseling and follow-up.
- Postpartum and post-abortion family planning counseling.
- Age-appropriate and confidential information and services for adolescents.

### HIV/AIDS

- Prevention.
- Behavior change programs (for example, safer sexual behavior, mass media campaigns, work-based programs, stigma reduction programs, and improved links with other reproductive health interventions).

Identify interventions
Define targets
Estimate resource needs
Check results

- Voluntary counseling and testing.
- Harm reduction for injecting drug users (for example, provision of sterile syringes, drug substitution treatment).
- Prevention of mother-to-child-transmission of HIV (including appropriate treatment and voluntary family planning services).
- Blood safety interventions to reduce the risk of receiving infected blood.
- Treatment
  - Antiretroviral therapy.
  - Treatment of opportunistic infections.
  - Orphan support.
  - Counseling and support for patients and families.
- Interventions to ensure affordability (for example, equity pricing, reduction of tariffs and duties, reduction of markups).
- Interventions to ensure appropriate use (for example, programs to improve the way drugs are prescribed, dispensed, and used; public media campaigns and education of providers).

#### *Tuberculosis*

- Directly observed treatment, short course (DOTS) (for example, political commitment, microscopy services, drug supplies, surveillance and monitoring systems, use of highly efficacious treatment regimes with direct observation of treatment).
- Adaptation of treatment to high-prevalence TB and HIV and multidrug-resistant TB settings.

#### *Nutrition*

- Promotion of mother- and baby-friendly community initiatives, including exclusive breastfeeding for the first six months and complementary feeding with continuing breastfeeding for infants ages 7–24 months.
- Provision of sufficient calories, proteins, and micronutrients to pregnant women and nursing mothers, supported by nutrition extension workers and using locally produced foods to the extent possible
- Complementary feeding for undernourished children under age 5, including fortified and blended foods, through nutrition extension workers.
- Fortification of food and public awareness campaigns to increase awareness about diet diversification and micronutrient intake.
- Emergency food assistance in cases and regions of severe stress or disasters.

#### *Access to essential medicines*

- Interventions to ensure availability (for example, incentives to direct research

Define targets

*Outcome targets.* While some of the health MDGs have quantified outcome targets (the child health and maternal health MDGs), others are stated in more general terms (for example, “halt or reverse the spread of HIV/AIDS” and “provide access to affordable, essential drugs”). In those cases, an operational MDG health strategy will need to

adopt specific numeric outcome targets as a guide. Note also that the targets below include nutrition interventions that are necessary elements of reducing hunger (Goal 1).

*Coverage targets.* Because the MDGs offer no specific guidance on coverage levels of health services (such as the proportion of the population

Identify interventions
Define targets
Estimate resource needs
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Example

Interpreting the health targets and indicators

Some of the UN Millennium Project’s task forces have proposed additions to the targets and indicators for monitoring progress toward the health MDGs that may be helpful for countries:

- Goal 4: Reduce child mortality.
- Reduce by two-thirds, between 1990 and 2015, the under-five mortality rate, ensuring faster progress among the poor and other marginalized groups.
  - Neonatal mortality rate.
  - Prevalence of underweight children under age 5 (see Goal 1).

- Goal 5: Improve maternal health.
- Reduce by three-quarters, between 1990 and 2015, the maternal mortality ratio, ensuring faster progress among the poor and other marginalized groups.
  - Coverage of emergency obstetric care.
  - Universal access to reproductive health services by 2015 through the primary healthcare system, ensuring faster progress among the poor and other marginalized groups.
  - Proportion of desire for family planning satisfied.
  - Adolescent fertility rate.
  - Contraceptive prevalence rate.
  - HIV prevalence among 15- to 24-year-old pregnant women (see Goal 6).

- Goal 6: Combat HIV, malaria, and other diseases.
- *Malaria.* Reduce malaria morbidity and mortality by 75 percent by 2015 from the 2005 baseline level.
  - *HIV/AIDS.* Reduce prevalence among young people to 5 percent in the most affected countries (defined as countries with adult prevalence above 10 percent in 2000) and by 50 percent elsewhere.
  - *TB.* Halve prevalence of TB and resulting deaths between 1990 and 2015.
  - *Access to essential medicines.* Ensure universal access to essential medicines in all developing countries.

that should have access to specific services), policymakers are faced with identifying these targets according to national needs.

The WHO and other normative bodies have put forward international targets that are available to countries (see also reports of UN Millennium Project task forces on health). The UN Millennium Project proposes that a health system to achieve the MDGs should aim to offer universal access to the essential services described below by 2015. The provision of basic services to the full population is often a commitment that many governments, including those in developing countries, have made to their citizens in constitutions and other core national

documents. Universal coverage is also consistent with the human right to health. Additionally, countries might need to consider setting coverage targets for interventions not explicitly included in the MDGs, such as ensuring universal access to reproductive health services (see Q&A). Recent evidence supports the need for universal coverage. For example, 99 percent coverage with an integrated package of child health interventions has the potential to reduce child deaths by 63 percent (Jones and others 2003) or very close to the MDG child health target of two-thirds reduction. Similarly, provision of core maternal health services, including contraception, can reduce maternal mortality by approximately three-quarters—again consistent with the MDG (UN

## step 3

### HEALTH SYSTEMS



## Q&A

### Why is access to reproductive health services important for Goal 5 (improve maternal health)?

Improving maternal health requires that countries be empowered to undertake interventions that go beyond averting maternal mortality, which is the current target for monitoring Goal 5. For example, improving maternal health also involves providing access to reproductive health services so that couples can avoid high-risk pregnancies as well as choose the timing and size of their families. To this end, the Task Force on Child Health and Maternal Health has recommended that an additional target and two new indicators be used to monitor Goal 5:

- *New target:* Ensure universal access to reproductive health services by 2015 through the primary healthcare system, ensuring faster progress among the poor and other marginalized groups.
- *New indicators:* Proportion of desire for family planning satisfied; adolescent fertility rate.

These indicators monitor two key aspects of improving maternal health not already captured by current targets and indicators. They also supplement other reproductive health indicators already in the MDG monitoring framework. The first indicator monitors a couple's ability to choose the timing and size of their families, an important aspect of maternal health. The second indicator is important for monitoring Goal 5 since adolescents die more frequently in childbirth than women of other ages. Additionally, teen pregnancies also rob women of other important life opportunities, including education and income-generating opportunities (such an indicator is thus also important for monitoring Goal 3, promote gender equality).



Millennium Project 2005n). To ensure that access to these services is equitable, countries will need to pay special attention to ensuring that progress on achieving the selected coverage targets is faster among the poor and marginalized (see UN Millennium Project 2005n).

## Estimate resource needs

The WHO, UNICEF, World Bank, and academic institutions have developed several models and approaches to estimate health investments needed to reach specific disease control targets or to deliver packages of services. We recommend several tools here, but others may be adapted to the MDG approach as well. There is no one needs assessment model that will calculate resource needs for the full health system. To do this, we recommend that countries separately cost four core components of a functioning health system:

1. *Direct interventions.* Recurrent costs for drugs, supplies, hospital beds, and the like for the essential health interventions in maternal health, child health, nutrition, HIV/AIDS, TB, and malaria.
2. *Human resources.* Number and cost of adequately trained health workers at all levels to deliver the interventions at scale (including pre-service and in-service training).
3. *Infrastructure.* Number and cost of building or refurbishing health facilities from health posts to first level referral hospitals (including capital costs, maintenance, and overhead).
4. *Health systems strengthening.* Costs of managers at all levels (training and salaries), quality control and audit systems, basic financial and accounting systems, health information systems (and required information and communication technology), public health functions (such as epidemiologic

demand for services (health education and community mobilization).

The tools available to calculate required resources for the four areas are:

### 1. *Direct intervention costs.* The UN Millennium

Project recommends several models for calculating recurrent costs of drugs, supplies, and the like. These are listed with links below. In these models, the user needs to input:

- Current coverage figures for the core services (for example, 10 percent of children with fever have access to a health clinic).
- Target coverage figures (for example, 100 percent coverage of integrated management of child illness).
- Basic epidemiologic data (for example, 90 percent of people in the country live in malaria-endemic areas).
- Unit costs (for example, daily cost of food and linens in a hospital). Note that drug costs will not usually need to be included because international drug prices for essential drugs have been coded into the models.

The models will then return an annual and a 10-year cost for the services.

2. *Human resources.* There is no single human resources model that fits every country's situation. In "Tools," we suggest simple spreadsheets developed for Ethiopia and Yemen that calculate both the number and cost of health workers, including nurses, doctors (generalists and core specialists), medical officers, pharmacists, lab and radiology technicians, and the like. The main

Identify interventions Define targets
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## See also

Tools to estimate health resource needs: [www.unmillenniumproject.org/policy/needs03.htm](http://www.unmillenniumproject.org/policy/needs03.htm).

Child health—updated IMCI model (United Nations Population Fund): [www.unmillenniumproject.org/documents/childhealth.zip](http://www.unmillenniumproject.org/documents/childhealth.zip).

Maternal and reproductive health—updated Mother Baby Package (United Nations Population Fund): [www.unmillenniumproject.org/documents/maternalhealth.zip](http://www.unmillenniumproject.org/documents/maternalhealth.zip).

Malaria—UN Millennium Project models for prevention and treatment: [www.unmillenniumproject.org/documents/malaria.zip](http://www.unmillenniumproject.org/documents/malaria.zip).

TB—UN Millennium Project guide to using Stop TB costing tools: [www.unmillenniumproject.org/documents/MP\\_TB\\_User\\_Guide\\_v1.0\\_18May2004.pdf](http://www.unmillenniumproject.org/documents/MP_TB_User_Guide_v1.0_18May2004.pdf).

HIV/AIDS—Cape Town AIDS Treatment Model for the costs of AIDS treatment (and for TB and HIV integrated treatment costs): [www.theglobalfund.org/en/apply/call/documents/](http://www.theglobalfund.org/en/apply/call/documents/).

HIV/AIDS—Futures Group resource needs model for calculating HIV prevention costs: [www.futuresgroup.com/WhatWeDo.cfm?page=Software&ID=Resource%20Needs](http://www.futuresgroup.com/WhatWeDo.cfm?page=Software&ID=Resource%20Needs).



## HEALTH SYSTEMS

be carefully estimated by each country for the specified level of service coverage. These estimates can be derived from countries' own target staffing levels for health facilities (see example below). Another approach is to use doctor to population or nurse to population ratios as a guide.

A third approach is to carry out a human resources needs survey, as in Tanzania, to estimate the number of health workers required to scale up service delivery consistent with reaching the MDGs. Such a survey defines the services to be offered and the required skill mix. It then calculates workloads based on the type of service and required training, as well as number of patients to be served. Human resources policies, including training and curriculum reform and training need projections, can then be based on this analysis.

In addition to numbers of health workers,

salary and training costs. Countries should be empowered to include these necessary investments in health strategies. In many countries health worker salaries are much too low to recruit and retain workers in the public sector, especially in rural and other underserved areas. Thus each country may need to conduct a market survey to estimate the salary level needed to adequately compensate doctors, nurses, and other health personnel, given the need to compete with the private sector as well as the international market (especially for physicians and nurses). The results can then inform the salary level to be used in the human resources needs assessment. Similarly, an assessment will need to make appropriate allowance for training costs, both in-service training and pre-service (professional college level) training.

**3. Infrastructure.** As part of the needs assessment each country needs to be empowered to prepare a projected facility plan, which lists existing



## Country example

### Human resources needs in 2015

#### Numbers of health workers needed by type of health facility

	Physicians	Pharmacists	Nurses	Lab technicians	Total
Health unit	0	0	6,650	0	6,650
Health center	1,630	0	3,260	1,630	6,520
Rural hospital	1,800	300	2,100	600	4,800
Government hospital	360	60	540	120	1,080
Referral hospital	210	30	270	36	546
Total	4,000	390	12,820	2,386	19,596

#### Costs of health workers, millions of U.S. dollars

	Total number needed	Salaries <sup>a</sup>	Pre-service training	In-service training	Total human resources cost
Health unit	6,650	16.0	6.7	3.2	25.8
Health center	6,520	17.6	17.1	2.7	37.5
Rural hospital	4,800	14.6	23.0	2.9	40.5
Government hospital	1,080	3.2	5.2	0.6	9.0
Referral hospital	546	1.6	2.5	0.3	4.4
Total	19,596	53.0	54.4	9.8	117.2

a. Calculations are based on adjusted salaries (doubled) for health workers, as follows: physicians, specialists, \$4,800; physicians, general practitioners, \$4,320; pharmacists, \$4,320; nurses, \$2,880; lab technicians, \$2,880. Retention and rural service incentives are not included.

Source: Yemen 2005.

renovation, and that need to be built. Needs can be estimated using national facility to population ratios or standards recommended by the WHO. The example below shows Ethiopia's facility needs and the associated cost of construction and maintenance.

4. *Health systems.* There are two ways to cost health systems requirements over and above the components listed above. One is to add an "overhead" markup to the cost of the direct services. For example, the UN Millennium Project has suggested specific

(see box), based on expert opinion in countries and among health systems experts (UN Millennium Project 2004b).

The second and more accurate way to cost health systems components is to specify in detail the components of the health system and identify the associated costs using a bottom-up approach. Specific suggestions for estimating costs of different components of health systems are:

- *Management systems*
  - *Costs of managers at all levels (training and*



## Country example

### Ethiopia health infrastructure needs

	Number to build	Number to upgrade	Number to maintain (fully functional units)	Construction or upgrade unit cost (US\$)	Operation and maintenance unit cost (US\$)	Total cost (US\$ millions)
Zonal hospitals	70	0	90	7,700,200	747,400	1,029.1
District hospitals	260	0	380	1,906,700	187,500	1,016.2
Health stations	0	2,470	140	298,000	8,010	548.9
Health centers	3,280	0	3,750	378,100	37,800	1,727.2
Health posts	13,500	0	16,000	26,300	1,310	541.0
Total	17,100	2,470	20,000	10,309,200	982,000	4,862.4



## Example

### UN Millennium Project health “overhead” assumptions

The following systems costs are in addition to the costs for direct interventions (drugs, for example), infrastructure (capital and maintenance), health worker salaries and training costs, and any specific costs for community education:

- Strengthening management systems (including financial management)—20 percent of direct health costs, including salaries.
- Improving monitoring, evaluation, and quality assurance—15 percent of direct health costs, including salaries.
- Building capacity for basic research and development—2 percent of direct health costs, including salaries.

For example, if the costs of interventions, infrastructure, salaries, and community education equal \$30 per capita a year, the health systems “overhead” costs would add another 37 percent, or \$11 per capita, resulting in a total cost of \$41 per capita.



HEALTH SYSTEMS

for facilities as well as for ministry of health central functions to estimate training (pre-service and in-service) as well as salary costs.

- *Basic financial and accounting systems.*

Calculate the cost of information systems, budgeting, financial management software, and related expenditures to improve disbursement and accounting systems.

### *Monitoring and public health functions*

- *Monitoring, evaluation, and quality control.*

Calculate costs for the development or adaptation of existing treatment and prevention protocols, the installation of information systems for tracking clinical outcomes at facilities and vital registries, the regulation of providers and facilities

(accreditation, credentials verification, practice audits), and drug quality testing and audits.

- *Public health functions.* These costs include,

for example, epidemiologic surveillance, outbreak reporting and evaluation, food and water safety regulations, occupational health and safety regulations, and enforcing health regulations and laws (quarantine and the like).

### *Community demand*

- *Health education and community mobilization.* Estimate the costs of

community educators (salary and training), mass media campaigns, school-based health education, and education for target groups (shopkeepers, vulnerable groups).



## Example

### Other health costing methodologies

The Marginal Budgeting for Bottlenecks Model has been developed by UNICEF and the World Bank, with input from the UN Millennium Project. The model takes a systemwide approach to estimating the costs of overcoming bottlenecks to service delivery. While this model was originally designed to help allocate marginal increases in health sector funds (for example, to decide how to best spend an additional \$2 per capita on health), it can be used to calculate the resources required to achieve the MDG outcomes as well. The adapted Marginal Budgeting for Bottlenecks has already been used successfully in Ethiopia. For this model to be consistent with an outcome-based assessment, countries using the model will need to ensure that the tool is adjusted to calculate outcome-based rather than incremental needs.

Another example of costing tools is the WHO's choice methodology, which aims to assess and improve the performance of health systems. It indicates which interventions are the best value for money and helps countries identify interventions that maximize health outcomes given available resources. Before using the model for MDG needs assessments, it would need to be adapted to calculate the resources required to achieve the health targets.



## Example

### Accounting for synergies—impact of investing in maternal and reproductive health

Family planning investments, a component of many health models, directly change the number of pregnancies, births, infants, and children in successive years. They therefore affect the volume of investments needed to achieve intervention coverage targets as well as the coverage that can be reached for a particular level of investment.

The updated Mother and Baby Package developed by UNICEF and the UN Millennium Project calculates the costs of safe motherhood and other reproductive health interventions. In addition, it allows the user to specify national targets for reduction in unmet need for family planning or for contraceptive prevalence rates or total fertility rates. Demographic models can use local data to adjust the age distribution of fertility and the mix of contraceptive methods and apply life table information.

These calculations estimate investment needs for family planning and the resulting population streams. Scenarios can then be compared to demonstrate the cost-benefit implications of family planning investments for health systems costs. The endogenous population streams can be used to calculate other allocation requirements. For example, an application in Yemen demonstrated that family planning investments respecting voluntary preferences could generate high returns in terms of reduced health system costs.



## HEALTH SYSTEMS

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Check results

### Check results

Sample results of health needs assessments are shown for Cambodia and Tanzania. Note that these results, and those from other countries where the UN Millennium Project is working, confirm that the minimum cost for universal delivery of an essential health package is about \$30 per capita a year in 2015.

## Estimated per capita cost of health interventions in Tanzania

### 2000 U.S. dollars

Component	2005	2010	2015	Share of 2015 total (%)	Average, 2005–15	Share of 2005– 15 average (%)
HIV/AIDS prevention	1.9	2.8	3.2	7.3	2.7	7.8
HIV/AIDS care	1.1	1.4	1.5	3.4	1.4	4.0
HIV/AIDS treatment	0.7	6.0	9.6	22.0	5.8	16.7
Tuberculosis	0.3	0.3	0.3	0.7	0.3	0.9
Malaria prevention	0.3	0.5	0.7	1.6	0.5	1.4
Malaria treatment	2.0	2.0	1.6	3.7	1.9	5.5
Maternal health	1.0	1.6	2.1	4.8	1.6	4.6
Child health	4.4	4.5	4.5	10.3	4.5	13.0
Management	2.3	3.8	4.7	10.8	3.7	10.7
Quality improvement	1.8	2.9	3.5	8.0	2.8	8.1
Human resources (salary increases)	4.7	7.6	9.4	21.6	7.5	21.6
Community demand	0.4	0.9	1.3	3.0	0.9	2.6
R&D capacity	0.2	0.4	0.5	1.1	0.4	1.2
Infrastructure recurrent costs	0.8	0.7	0.7	1.6	0.7	2.0
Total	21.9	35.4	43.6	100	34.7	100

## Estimated per capita cost of health interventions in Cambodia

### 2000 U.S. dollars

Component	2005	2010	2015	Share of 2015 total (%)	Average, 2005–15	Share of 2005– 15 average (%)
HIV/AIDS prevention	0.4	0.7	0.8	2.8	0.7	3.1
HIV/AIDS care	0.5	0.8	0.8	2.8	0.7	3.1
HIV/AIDS treatment	0.3	2.2	4.0	13.8	2.3	10.2
Tuberculosis	0.9	0.9	0.9	3.1	0.9	4.0
Malaria prevention	0.1	0.1	0.2	0.7	0.2	0.9
Malaria treatment	0.0	0.0	0.0	0.0	0.0	0.0
Maternal health	1.1	1.8	2.5	8.6	1.9	8.4
Child health	3.6	5.2	6.1	21.0	5.1	22.7
Management	1.4	2.4	3.1	10.7	2.4	10.7
Quality improvement	1.0	1.8	2.3	7.9	1.8	8.0
Human resources (salary increases)	2.7	4.7	6.1	21.0	4.7	20.9
Community demand	0.3	0.8	1.2	4.1	0.8	3.6
R&D capacity	0.1	0.2	0.3	1.0	0.2	0.9
Infrastructure recurrent costs	0.9	0.8	0.7	2.4	0.8	3.6
Total	13.3	22.4	29.0	100	22.5	100

Source: UN Millennium Project 2004b.



# Education—ensuring universal primary education and expanded post-primary and higher education

The UN Millennium Project has found that countries need to invest in education at all levels to achieve the MDGs. While Goal 2 specifies only achieving universal primary education, the Goal 3 target also focuses on eliminating gender disparity at all levels of education. The UN Millennium Project Task Forces on Education and Gender Equality and Science, Technology, and Innovation have further recommended that an education strategy to achieve the MDGs be broadened to include not just universal primary, but also expanded secondary and tertiary education, as well as vocational education and adult literacy programs. This recommendation has guided the analysis for this investment cluster.

Achieving the education MDG will take a combination of investments and policies aimed at getting children in school and providing them a quality education. Countries should be

empowered to address institutional weaknesses in the education system by strengthening national commitment to education, promoting mechanisms for local control of education with an explicit role for parents and communities, and recognizing civil society groups as legitimate participants in education planning. In addition, we recommend that governments be empowered to make strategies to improve the quality of information about education sector performance and institute systems to track student learning outcomes.

In addition to education reform, specific interventions are also needed to increase enrollment and completion. Below we highlight these interventions, aimed at reaching out to school children and hard to reach populations, such as those in remote rural areas and marginalized communities.

## See also

UN Millennium Project. 2005. *Toward Universal Primary Education: Investments, Incentives, and Institutions*. London: Earthscan. [[www.unmillenniumproject.org](http://www.unmillenniumproject.org)].

Identify interventions
Define targets
Estimate resource needs
Check results

## Identify interventions

Interventions need to be tailored to local conditions and priorities. The list of interventions provided below may assist countries in updating or developing their own list of interventions.

These interventions have been grouped according to educational level—pre-primary, primary, secondary, and tertiary education as well as adult literacy programs.

- *Pre-primary education*
- Infrastructure provision, including construction

- Human resources, including hiring and training of teachers.
- Learning materials.

## Primary education

- Infrastructure provision, including classrooms, toilets (especially toilets for girls), drinking water and hand washing facilities, furniture, and transportation services.
- Human resources, including hiring and training teachers (especially female teachers), supervisors, evaluators, and managerial and



EDUCATION

## What interventions needed to achieve the education MDG have been included in other investment clusters and so are not found here?

Meeting the education MDG also depends on interventions that have been included in other investment clusters. Access to water supply in both schools and households, for example, leads to increased school attendance. Adequate transport infrastructure and services are also critical for achieving Goal 2. Poor health may hinder education, and the HIV/AIDS pandemic has been shown to reduce educational attainment, particularly in Sub-Saharan Africa. Interventions to address these challenges are critical to achieving Goal 2 and have been accounted for in other clusters.

- |  |  |
|--|--|
| <ul style="list-style-type: none"> <li>• Learning materials, including textbooks, writing materials, and uniforms.</li> <li>• School meals.</li> <li>• Curriculum reform.</li> <li>• Demand-side incentives for primary education completion (such as cash subsidies for girls, take-home rations, and the like).</li> <li>• Special interventions to reach out-of-school children or regionally isolated communities (such as distance education).</li> </ul> | <ul style="list-style-type: none"> <li>• Demand-side incentives, including subsidies for girls.</li> </ul> |
|--|--|

### *Tertiary education*

- |  |  |
|--|--|
| <ul style="list-style-type: none"> <li>• Infrastructure provision, including classrooms, toilets (especially toilets for girls), drinking water and hand washing facilities, laboratories, libraries, sports facilities, and transportation services.</li> </ul> | <ul style="list-style-type: none"> <li>• Infrastructure provision, including construction of buildings (classrooms, research laboratories, offices, and dormitories).</li> <li>• Human resources, including hiring and training of lecturers, professors, administrative staff, and researchers.</li> <li>• Improved school management, including financial and budgetary systems to collect fees, disburse research grants, establish fellowships, and pay staff.</li> <li>• Demand-side incentives, including vocational training and student scholarships.</li> </ul> |
|--|--|

### *Secondary education*

- |  |  |
|--|--|
| <ul style="list-style-type: none"> <li>• Human resources, including hiring and training of teachers, especially female teachers.</li> <li>• Learning materials, including textbooks, stationery, writing materials, and uniforms.</li> <li>• School meals.</li> <li>• Curriculum reform and improved school</li> </ul> | <h3><i>Adult literacy</i></h3> <ul style="list-style-type: none"> <li>• Learning materials, including textbooks and writing materials.</li> <li>• Human resources, including hiring and training teachers.</li> <li>• Improved management of adult literacy</li> </ul> |
|--|--|

well as hiring and training supervisors and coordinators.

### *Vocational and tertiary training*

- Learning materials, human resources, and management of vocational and tertiary training in MDG priority areas (health, education, engineering, and the like).

advance, depending on the years of schooling in the country.

### *Secondary education*

The secondary education target is to be determined locally based on country needs. This analysis sets a target for the share of children that transition from primary to secondary school, as indicated below:

- 80 percent transition rate from primary to secondary education (see Q&A).

### **Define targets**

To ensure that a strategy is consistent with MDG outcomes, we recommend that needs assessments identify targets for each educational level. For primary education, the analysis is guided by the MDG target of 100 percent completion.

### *Pre-primary education*

- 100 percent pre-primary education coverage by 2015.

### *Vocational training and tertiary education*

- Enrollment targets for vocational training and tertiary education will need to be set at a level sufficient to meet national demand for skilled workers, given the overall package of services needed to meet the MDGs.

### *Primary education*

- 100 percent primary completion rate by 2015; this requires universal enrollment much in

Identify interventions
Define targets
Estimate resource needs
Check results



## EDUCATION



### **Example**

**Example**  
If a country requires six years of schooling, all children will need to enter first grade by 2009 to achieve 100 percent primary completion by 2015. Specific targets may also be needed for overage children who have not completed a full cycle of primary schooling.



## Q&A

### Why secondary education matters

There are no specific MDG targets for secondary education. Why then is it important to include a target for secondary education in an MDG needs assessment? We highlight three reasons:

- The human resources needs for most MDGs will require secondary school graduates (engineers, doctors, nurses, school teachers, public administrators).
- The availability of secondary education increases parents' incentive to send children to primary school.
- For marginalized groups in particular, research shows that post-primary education is needed to realize sufficient returns on education (particularly in the case of girls, where the returns to secondary education are significantly higher than those to primary education).

The targets for secondary education will also need to be compared and revised, if necessary, once the total human resources needs are assessed and aggregated, to ensure that the expansion of secondary schooling is in line with the needs for trained personnel for the other sectors.

### Estimate resource needs

The UN Millennium Project has created a series of models that estimate the costs of delivering the interventions described above. Needs are calculated using simple multiplication—[population size] x [percent of population reached] x [number of interventions per person or household] x [unit cost of intervention]—and scaled up over the 11-year period to meet the targets.

To use this model to calculate the resources needed for this investment cluster, the user needs to input the following information:

- Current and target coverage for each intervention (such as coverage of subsidies to attend school or hiring quality teachers).
- Unit costs of providing interventions (such as textbooks or school construction).
- Input quantity ratios (such as pupil-teacher ratio or pupil-classroom ratio).

Based on these inputs, the user can calculate the resources for a comprehensive set of investments needed to achieve the targets, including:

- Human resources (such as hiring and training teachers and staff to provide training services or create mass media programs).

Identify interventions
Define targets
Estimate resource needs
Check results

- Physical infrastructure (such as building schools and laboratories).
- Coverage needed to achieve the targets (such as the percentage of girls to receive subsidies to attend school by 2015).
- Financial resources needed to provide and maintain these interventions.



## Example

### Example

For the intervention of providing subsidies to girls attending primary school, the analysis will identify current and target coverage. For example, no girls may be receiving such subsidies today, compared with a target coverage of 50 percent by 2015. Similarly, only 70 percent of students may have access to textbooks today, while the target coverage for 2015 may need to be 100 percent.



## EDUCATION

Identify interventions
Define targets
Estimate resource needs
Check results

### Check results

Sample results from the education needs assessments are shown below for Uganda. Note that these, and results from other countries where the UN Millennium Project is working, confirm that the total cost of education interventions for the MDGs in Uganda is approximately \$16 per capita a year in 2015.

## Estimated costs of education interventions in Uganda

Millions of 2000 U.S. dollars unless otherwise indicated

	2005	2010	2015	Share of 2015 total (%)	Average, 2005–15	Total, 2005–15	Share of 2005–15 total (%)
Primary education	187.6	277.7	458.2	71.1	292.5	3,217.8	63.5
Capital cost	26.3	47.3	119.7	18.6	55.4	609.7	12.0
Operating cost	161.3	230.4	338.5	52.5	237.1	2,608.1	51.5
Cost per student (2000 US\$)	43.4	51.3	70.6	na	53.1	584.6	na
Secondary education	142.1	155.7	169.6	26.3	155.5	1,710.8	0.3
Capital cost	7.2	22.1	24.5	3.8	19.7	216.8	4.3
Operating cost	134.9	133.6	145.1	22.5	135.8	1,494.0	29.5
Cost per student (2000 US\$)	278.7	176.1	122.6	na	185.7	2,042.2	na
Adult literacy	8.6	12.0	16.4	2.5	12.8	140.5	0.0
Capital cost	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Operating cost	8.6	12.0	16.4	2.5	12.8	140.5	2.8
Cost per student (2000 US\$)	13.0	13.0	13.0	na	13.0	143.0	na
Total cost	338	445	644	na	461	5,069	na
Total cost per capita (2000 US\$)	12.2	13.5	16.3	na	13.7	151.1	na
Primary education (2000 US\$)	6.8	8.4	11.6	71.2	8.6	95.1	62.9
Secondary education (2000 US\$)	5.1	4.7	4.3	26.4	4.7	51.8	34.3
Adult literacy (2000 US\$)	0.3	0.4	0.4	2.5	0.4	4.2	2.8

na is not applicable.

Source: UN Millennium Project 2004b.

## Gender equality—promoting gender equality and empowering women

While Goal 3 calls for promoting gender equality and empowering women, the official MDG target addresses only gender parity in education at the primary, secondary, and tertiary levels. The goal of gender equality is much broader than education, and taking this into account, the UN Millennium Project Task Force on Education and Gender Equality has recommended a much broader range of interventions and policies needed across sectors to achieve this MDG. The task force has identified seven strategic priorities as the minimum actions necessary to empower women. These seven strategic priorities form the basis for this investment cluster, including the setting of targets and identification of interventions.

Meeting many of the strategic priorities will entail policy changes that are not easy to cost. Examples include the recognition and protection of sexual and reproductive rights, legislation to guarantee property and inheritance rights for women and girls, policies that eliminate gender gaps in the labor market and discourage sex-based occupational segregation, and legislation that enables women to participate in political life. Such policy reforms form a necessary and important complement to the interventions identified. The needs assessment focuses on the tangible interventions below that help achieve gender equality.



### GENDER EQUALITY

#### See also

UN Millennium Project. 2005. *Taking Action: Achieving Gender Equality and Empowering Women*. London: Earthscan. [www.unmillenniumproject.org].

## Q Q&A

### What are the seven strategic priorities for achieving gender equality?

1. Strengthen girls' opportunities for post-primary education while simultaneously meeting commitments to universal primary education.
2. Guarantee sexual and reproductive health and rights.
3. Invest in infrastructure to reduce women's and girls' time burdens.
4. Guarantee women's and girls' property and inheritance rights.
5. Eliminate gender inequality in employment by decreasing women's reliance on informal employment, closing gender gaps in earnings, and reducing occupational segregation.
6. Increase women's share of seats in national parliaments and local governmental bodies.
7. Combat violence against girls and women.



## What interventions needed to achieve the gender MDG have been included in other investment clusters and so are not found here?

Since gender equality interventions cut across all of the other investment clusters, the needs assessment analyses for other investment clusters include gender-specific interventions.

For example, in agriculture a special effort is needed to recruit and train female extension workers to ensure that the national extension service reaches female farmers as much as it reaches male farmers. In education, increasing retention of girls in school may require special subsidies on the demand side and special facilities, such as toilets for girls, on the supply side. In urban development, improving security of tenure to improve the lives of slum dwellers must ensure equal access for women. In rural development, reducing women's time poverty would require increasing access to microfinance and providing clean cooking fuels, electricity, and water and sanitation supply within the household or nearby, to reduce the time women spend on firewood and water collection.

Indeed, three of the seven strategic priorities outlined above have been included in the needs assessment of other investment clusters: post-primary education for girls has been coded as part of the education needs assessment, the provision of sexual and reproductive health services has been coded within the health sector needs assessment, and infrastructure to reduce women's time burdens has been coded as part of the rural and urban needs assessment.

So as not to double-count interventions, this investment cluster includes the additional specific interventions to meet Goal 3. They complement the gender interventions for the other MDGs, which alone are not sufficient to reduce gender inequality or empower women.

### Identify interventions

While interventions will need to be tailored to local conditions and priorities, below is a list of possible interventions that are derived from the seven strategic priorities of the UN Millennium Project Task Force on Education and Gender Equality (UN 2005k). This menu of interventions is grouped according to the following clusters—reproductive health rights and access to health services, improving economic and political opportunities for women, improving women's security, and addressing systemic gender disparities.

#### *Strategic priority 2: guarantee sexual and reproductive health and rights*

In addition to reproductive health interventions contained in the health-related investment cluster, the interventions included here support long-lasting changes in the awareness and use of reproductive health services, such as through creating enabling legislative frameworks and raising awareness of reproductive health rights.

- Increase awareness and provide education on sexual and reproductive health and rights through mass media and community-based programs.

Identify interventions
Define targets
Estimate resource needs
Check results

- Provide comprehensive sexuality education within schools and community programs.

#### *Strategic priority 5: reduce gender inequality in employment*

- Promote access to work through vocational training programs and school-to-work transition programs for adolescent girls.
- Provide care services (for children, the elderly, the disabled, and the sick) to allow women to work.

#### *Strategic priority 6: increase women's political representation*

- Provide leadership and management training to female candidates in elections at the local, regional, and national levels.
- Provide training to female elected representatives at the local, regional, and national levels.

#### *Strategic priority 7: combat violence against women*

- Prevent violence against women through awareness campaigns and education, hotlines, and neighborhood support groups.
- Provide protection from violence through police and medical services, counseling and emergency housing, or short-term shelters to victims of violence.
- Provide punishment for perpetrators of violence through legal redress.

Apart from specific priorities, investments are also needed to improve the capacity of governments and other actors to address systemwide drivers of gender inequality.

#### *Systemic issues*

- Strengthen the capacity of governments to deliver the interventions identified above.
- Strengthen national women's machineries through increased budgetary allocations and staffing of ministries of women's affairs and gender focal points in other ministries.
- Undertake institutional reform through sensitization programs to train judges, bureaucrats, land registration officers, and police officers.
- Invest in legal aid services to help women claim their rights and access the interventions identified above.
- Improve registration systems for issuing identification documents to women (in those settings where applicable).
- Invest in data collection and monitoring activities to track gender outcomes.

The above list is not exhaustive and will change from country to country depending on each country's context and needs. The list should be seen as illustrative and a starting point for actions to achieve the strategic priorities not cosed in the other MDG needs assessments.

## Define targets

To estimate the national resource requirements for each of these interventions, the assessment will need to define targets to reach the specific target group of each intervention, based on national circumstances. For example, we recommend that interventions to improve economic and political opportunities, to improve security, and to increase awareness of women's rights (such as to land or to reproductive health) are formulated to reach

all women by 2015. Other interventions, such as training programs for female elected officials, may reach 50 percent of the target population (female candidates) by 2015. We recommend that awareness programs, which aim to alter society's attitudes toward gender issues, target the entire population, male and female. Finally, training programs that focus on specific groups such as bureaucrats, judges, and the like would have separate targets.

Identify interventions
Define targets
Estimate resource needs
Check results



## Example

### Interpreting the gender indicators

The UN Millennium Project Task Force on Education and Gender Equality has proposed additional indicators to monitor progress toward the gender equality MDG, including:

- The ratio of female to male gross enrollment rates in primary, secondary, and tertiary education.
- The ratio of female to male completion rates in primary, secondary, and tertiary education.
- The ratio of female to male contraceptive demand satisfied.
- Adolescent fertility rate.
- Hours per day (or year) women and men spend fetching water and collecting fuel.
- Land ownership by male, female, or jointly held.
- Housing title, disaggregated by male, female, or jointly held.
- Share of women in employment, both wage and self-employment.
- Percentage of seats held by women in local government bodies.
- Prevalence of domestic violence.

Identify interventions
Define targets
Estimate resource needs
Check results

## Estimate resource needs

The UN Millennium Project has created a series of models that estimate the costs of delivering the interventions described above. To use these models to calculate the resources needed for this investment cluster, the user will need to input the following information:

- Current and target coverage for each target group.
- Unit costs of providing interventions.
- Input quantities (such as people per program).

Based on these inputs, the user can then calculate the resources for a comprehensive set

of investments needed to achieve the targets, including:

- Human resources (such as staff to provide training services or create mass media programs).
- Physical infrastructure (such as short-term housing for victims of violence).
- Financial resources needed to provide and maintain these interventions, both yearly and total costs.
- Coverage needed to achieve the targets (such as the number of women reached by training or awareness programs).

step

3

GENDER EQUALITY



TIP

### Tips for cost data for gender needs assessments

In many cases the data for costs for gender interventions are difficult to find. Here are some data sources that may provide the cost data or serve as proxies for costs:

- Community-based awareness programs run by nongovernmental organizations and governments.
- Mass media awareness campaigns, such as literacy campaigns and HIV/AIDS awareness campaigns.
- Shelter and support services for women subject to violence run by nongovernmental organizations.
- Administrative training programs and refresher courses.
- Ministerial budget needs in comparable countries with well functioning ministries of women's affairs.

Check results

Per capita MDG investment needs are remarkably similar across countries, providing some convenient shorthand for assessing whether results of needs assessments are in the orders of magnitude consistent with the MDGs.

Sample results from a gender needs assessment are shown below for Tajikistan. Note that these,

Identify interventions
Define targets
Estimate resource needs
Check results

and results from other countries where the UN Millennium Project is working, confirm that the total cost for providing key gender interventions amounts to about \$2 per capita a year in 2015. Importantly, the estimate presented below reflects only interventions included in this investment cluster. Many other gender-specific interventions, included across each of the other investment clusters, are not reflected here.

Estimated costs of promoting gender equality in Tajikistan

Item	2005	2010	2015	2005-15
Total cost (US\$ millions)	5.2	10.0	16.5	112.1
Capital costs	3.4	3.4	4.6	38.3
Recurrent costs	1.3	4.8	8.6	53.6
Share of GDP (percent)				Average
Total cost	.003	.001	.004	.003
Capital costs	.002	.001	.001	.001
Recurrent costs	.001	.002	.002	.002
Per capita (US\$)				Average
Total cost	0.8	1.3	2.0	1.3
Capital costs	0.5	0.4	0.5	0.5
Recurrent costs	0.2	0.6	1.0	0.6

Source: UN Millennium Project 2005h.

## Environment—investing in improved resources management

The ecosystem services provided by a healthy environment underpin human life and well-being by supplying food, clean water, disease control, and protection from natural disasters. Maintaining the environment is thus necessary to achieve the MDGs. But the environment is under threat in most countries because of rising pollution, soil degradation (including rapid desertification), deforestation, destruction of coastal and freshwater fisheries, rising water scarcity, declining biodiversity, and climate change.

In Goal 7 governments have committed to ensure environmental sustainability and to reverse the loss of environmental resources. However, the MDG does not provide clear operational guidance to countries on what they should aim to achieve by 2015 and beyond, and how to differentiate strategies that are environmentally sustainable from those that are not. For these reasons, a needs assessment for environmental sustainability will first identify environmental priorities and set quantitative targets to be achieved by 2015. On this basis they can carry out a needs assessment and identify the policies that support environmental interventions.

Environmental strategies address challenges that tend to be specific to each country.

The UN Millennium Project Task Force on Environmental Sustainability has identified six main investment areas for environmental management:

- Agricultural production systems.
- Forests.
- Freshwater resources and ecosystems.
- Fisheries and marine ecosystems.
- Air and water pollution.
- Global climate change.

We recommend that countries first identify environmental priorities on the basis of this list or by drawing on any of the sources identified below. Examples could be reversing eutrophication of large lakes, halting and reversing desertification in arid or semi-arid areas, or improving forest management. In addition, strategies to reduce risks and mitigate the impact of extreme events will be an important priority for countries that are vulnerable to natural disasters. These include disaster risk reduction management practices and improvement of disaster preparedness, as agreed recently at the 2005 World Conference on Disaster Reduction in Kobe.

Once countries have identified their environmental priorities, the needs assessment process will encourage policymakers to set clear



ENVIRONMENT

### See also

Reports of the Millennium Ecosystem Assessment. [www.millenniumassessment.org].

Poverty Environment Initiative. 2004. "Attacking Poverty While Improving the Environment: Practical Recommendations." New York. [www.unep.org/seed/pei/newpublication/practeng.pdf].

UN Millennium Project. 2005. *Environment and Human Well-Being: A Practical Strategy*. New York. [www.unmillenniumproject.org].

World Bank. 2002. *A Sourcebook for Poverty Reduction Strategies*. Washington, D.C. [www.worldbank.org/poverty/strategies/sourceoc.html].

environmental objectives to be achieved by 2015 for each area. To effectively guide policymaking and investment strategies, it will be important that to the extent possible these objectives be quantitative, measurable, and time-bound, focusing primarily on outcomes rather than processes. Examples include:

- Halt and reverse desertification by 2015.
- Increase forest cover by [x] percent by 2015.
- Slow the rate of biodiversity loss by [x] percent by 2015.
- Achieve disaster preparedness of the country by 2015.
- Reduce biological oxygen demand in freshwater ecosystems to a specific threshold and achieve other freshwater quality standards.
- Reduce particulate and other forms of air pollution to internationally agreed minimum standards.
- Protect a minimum share of coastlines and coral reefs as spawning grounds for fish.

An indicative list of outcome objectives is presented in the report of the Task Force Report on Environmental Sustainability (UN Millennium Project 2005c), which also describes the analytical and political processes of identifying objectives in more detail. Once outcome objectives have been specified, countries can identify interventions to achieve the objectives in each priority area.

### Identify interventions

As for the other investment clusters, an environment needs assessment identifies the interventions to achieve their environmental outcome objectives. For example, suggested

interventions to improve forest management could include:

- Reforestation and tree planting schemes.
- Training and hiring of forestry personnel to provide technical support to communities and ensure enforcement of existing regulations.
- Microcredit and livelihoods education programs for forest dwellers.
- Establishment of protected areas.

As another example, if the objective is to reduce biological oxygen demand in freshwater ecosystems, interventions may include:

- Expansion of access to improved sanitation.
- Construction and operation of wastewater treatment systems.
- Protection of upstream catchment areas to reduce nutrient loads caused by erosion.
- Extension of water quality monitoring systems.

Note that this analysis would need to be closely coordinated with work carried out as part of the rural and urban development clusters.

Due to the large number of environmental challenges, each requiring targeted interventions, we do not list all interventions here. More information on environmental interventions is available in the sources listed in “See also.”

All interventions need to be complemented by supporting policies and institutional reforms, such as the removal of environmentally harmful subsidies, reform of land tenure regimes, decentralization of forestry management authority, and so forth. The reports cited above also describe such reforms in more detail.

Identify interventions
Define targets
Estimate resource needs
Check results



Identify interventions
Define targets
Estimate resource needs
Check results

### Define targets

For each intervention, quantitative coverage targets will help ensure that the outcome objectives identified above will be achieved. For example, countries may specify the share of urban wastewater that needs to undergo treatment to meet minimum water quality standards in freshwater ecosystems. Or countries may estimate how many trees need to be planted between today and 2015 to achieve their reforestation objectives.

Identify interventions
Define targets
Estimate resource needs
Check results

### Estimate resource needs

The coverage targets can then be multiplied by the unit costs of interventions to yield the estimate of resource needs. In the case of tree planting the

following questions may need to be addressed to estimate the resource envelope:

- How many trees need to be planted between today and 2015 to achieve the target?
- What is the unit cost of planting each tree?
- What other investments need to be made to enable scale-up to occur?
- Are there synergies with other interventions that change the total resources needed?

Answering these questions will permit planners to estimate total resource needs and their distribution over time. For example, if tree planting needs to be frontloaded to give forests time to mature, more resources will be needed at the beginning of the strategy.



## Check results

Few national environment strategies contain detailed cost estimates for achieving environmental sustainability. Moreover, at press time, countries that had initiated MDG-based planning had not yet completed detailed environment needs assessments. As a result quantitative results are not yet available for comparison.

Identify interventions
Define targets
Estimate resource needs
Check results

## Science, technology, and innovation—building national capacities

Identify interventions
Define targets
Estimate resource needs
Check results

The MDGs make clear the need to invest in science, technology, and innovation since technological advance is the long-term driving force of development and economic growth. For example, if the MDGs are to be achieved, key technological breakthroughs are urgently needed in areas such as health, environmental management, and infrastructure development. The benefits of science and technology are the fruits of enormous social investments in education, scientific discovery, and targeted technological development to strengthen national systems of innovation. For example, basic investments in communication infrastructure are often a precondition for private investment, and support to research institutions can foster breakthroughs in technology.

Governments can facilitate the generation, use, and diffusion of knowledge by building capacity for scientific research and technological learning. Public interventions can also play a catalytic and supportive role for promoting technological and scientific innovation by business enterprises (the site of accumulation and application of technical learning). These interventions will need to be complemented by supportive policies and institutional reforms, recommendations for which are outlined in the report of the UN Millennium Project Task Force on Science, Technology, and Innovation (UN Millennium Project 2005g).

### Identify interventions

The task force's report describes a detailed menu of options for promoting science and technology. For the purpose of an MDG needs assessment, interventions fall into four categories:

#### *Promoting platform technologies*

- Investment in information and communication infrastructure, genomics, and other platform technologies, including the extension of telecommunications infrastructure.

#### *Promoting business opportunities in science and technology*

- Establishment of science parks and incubators for technology-based companies.
- Improving financial services and incentives to support private sector research and development.

#### *Expanding access to science and technology education and research*

- Extension and maintenance of centers of excellence for scientific research, including the financing of research at universities.

#### *Improving science and technology advice at the national level*

- Creation of an independent body charged with providing scientific advice and technology forecasting to policymakers.
- Training decisionmakers in science, technology, and innovation.



### Define targets

To make these investments quantifiable, a needs assessment will also set targets for each of the interventions related to science and technology. Such targets will likely differ substantially by country.

Targets could include:

- Fitting of all schools and hospitals with basic information and communication technology infrastructure by 2010.
- Establishment of national science advisory structure, with operating budget and statutory, legislative, or jurisdictional mandate, by 2006.
- Training of key decisionmakers by 2008.
- Enrollment of a minimum share of each year in higher education programs focusing on the sciences and engineering.
- Provision of a minimum share of GDP to national research and development through government and academic institutions.

While each of these components is necessary for achieving the MDGs, the lack of adequate

data will make it difficult in most cases to unambiguously establish quantitative thresholds that need to be met if the MDGs are to be achieved. As a result most objectives will be based on political decisions in each country that can be informed by the experience of other countries that are successfully using science and technology, such as much of Southeast Asia.

### Estimate resource needs

No standalone models exist to estimate investment needs in science and technology for meeting the MDGs. As in the other areas, analysts could first identify the needs in terms of infrastructure and human resources for each of the four priority areas. Once these coverage targets are known, they can be multiplied by unit costs to estimate overall needs. For example, experience suggests that the annual cost of operating high quality institutions of higher learning in low-income countries is approximately \$500 per student. Such international benchmarks can be used when no detailed national data are available.

Identify interventions
Define targets
Estimate resource needs
Check results

Identify interventions
Define targets
Estimate resource needs
Check results

## **Infrastructure and integration—supporting cross-national infrastructure, trade integration, and government cooperation**

The UN Millennium Project identifies several regional goods as critical for achieving the MDGs. Developing countries that need to overcome the challenges associated with geography and small market size should be empowered to invest in cross-national infrastructure that, for example, lowers the cost of transport and energy services. Economic cooperation and trade integration can further lower the cost of transport, trade, and energy. In addition, we recommend that countries pursue regional strategies to manage environmental challenges, such as desertification and transboundary watersheds.

### **See also**

UN Millennium Project. 2005. *Environment and Human Well-Being: A Practical Strategy*. London: Earthscan. [www.unmillenniumproject.org].

UN Millennium Project. 2005. *Investing in Development: A Practical Plan to Achieve the Millennium Development Goals*. London: Earthscan. [www.unmillenniumproject.org].



## Identify interventions

### *Cross-national transport links*

Interventions include the construction and maintenance of international roads, railways, ports, waterways, and airports.

### *Energy infrastructure*

In particular, small countries will find it important to invest in regional electricity pools and other energy infrastructure to reduce the cost of energy. Examples for interventions include:

- Construction and maintenance of cross-country high-voltage lines and other transmission infrastructure.
- Construction of pipelines for oil and gas as well as storage tanks.

### *Regional environmental management*

Regional environmental management comprises investments in transboundary cooperation and regional institutions for environmental management and policy reforms. The critical point is coherence, to ensure that policies support the successful delivery of the interventions. Chapters 5 and 6 of the

report of the UN Millennium Project Task Force on Environmental Sustainability (UN Millennium Project 2005c) discuss the needed policy changes.

### *Trade facilitation*

Trade facilitation interventions to decrease costs of freight could include:

- Improved roads and road maintenance between cities and major ports.
- Port dredging and automation of cargo transfer processes.

Interventions to address customs waiting times could include:

- Human resources development.
- Automation and computerization of customs procedures.
- Investments in improved information and communication technology infrastructure.

Supportive policies include rationalizing customs valuation procedures, introducing shared regional standards, and developing joint regional positions for multilateral trade negotiations.

Identify interventions
Define targets
Estimate resource needs
Check results



## Example

### **Regional management of the Mekong River**

In Southeast Asia four governments formed the Mekong River Commission to promote regional sustainable management of the Mekong River. With \$22.1 million in budgeted expenditures for 2004, the commission plans to implement a number of activities, including water basin development projects, management training programs, extension activities, and the development of harmonized land use policies. The commission provides a structured forum for establishing common policies and practices associated with riparian management.

Identify interventions
Define targets
Estimate resource needs
Check results

## Define targets

### *Transport links*

The specific targets will vary according to the obstacles in each country, but to the extent possible, analysis should focus on specific outcomes needed to support the achievement of the MDGs. Possible examples are:

- Increase the total number of multimodal transport links with neighboring countries by 25 percent by 2015.
- Lower costs of freight by 50 percent by 2015.

### *Energy infrastructure*

As for transport infrastructure, countries should be empowered to set targets for regional energy infrastructure with a view to overcoming obstacles to reaching the MDGs, such as high energy costs, need to meet peak electricity demand, and the like.

### *Regional environmental management*

Targets for regional environmental management focus on transboundary environmental challenges that require international coordination. Ideally, targets should focus on outcomes rather than processes, but where processes and institutions are absent, these are also relevant areas for goal-setting.

### *Trade facilitation*

- Targets need to be country-specific and ground “trade facilitation” in concrete objectives, such as:
- Decrease customs wait times by 50 percent by 2015.
  - Decrease tariff and nontariff restrictions on trade—particularly for small and medium enterprises.





### Estimate resource needs

Estimating resource needs for cross-national cooperation entails costing the interventions, institutions, and policy reforms needed to achieve established targets. No standard needs assessment models exist for regional infrastructure. Consistent with analysis in other clusters, an assessment of resources needed for cross-national infrastructure and government cooperation should include both capital and operating costs.

Estimating costs of institutions for regional cooperation requires assessing the capital and annual operating costs of establishing these bodies, which may include regional secretariats, scientific institutes, or regulatory agencies. Analysts will want to pay close attention to quantifying human resources needs, which can often make up a large share of total costs. For example, administrative expenditures for the Mekong River Commission secretariat amount to approximately 15 percent of total costs, covering staff costs, travel, supplies, and other general operating costs.

Identify interventions
Define targets
Estimate resource needs
Check results

## Public management—investing in public sector management systems

Public management systems comprise the set of people, institutions, and procedures that allow government and public administration to function. Management systems are an essential part of service delivery, if often overlooked and underfunded. That the quality of public sector governance depends crucially on investments in public sector management systems is frequently ignored or underestimated. Even in countries with good governance public management frequently suffers from a lack of trained managers, poor information systems, rigid civil service procedures, and inadequate budgets to address these shortcomings.

Though investments in public management, such as salary increases and information technology investments, are addressed in all clusters, we consider here those actions that need to be addressed across sectors. These interventions may require the involvement of central ministries and agencies such as the ministries of planning and finance, the central bank, and decisionmaking bodies such as parliaments. Coordination across the government is particularly important in setting standards and guidelines for the investments that will be made in other intervention clusters.

Two areas where central guidance is often needed to ensure coherence on standards across ministries are human resources and planning and management. Public management systems depend critically on policy decisions about how systems should be organized and managed, as well as clear definitions of responsibility and lines of

in human resources investments across sectors and ensure that countries can attract and retain high quality staff in all areas, countries will need common procedures and standards on salaries and pay scales and consolidated plans for civil service reform. The development of human resources plans, heavily informed by line ministers, is needed to eliminate redundancies and deploy civil servants in the most effective way possible.

Standards for planning and management are needed for effective systems of quality assurance and internal audits. Clear accountability chains and feedback mechanisms are also part of this central policy guidance. Permanent national bodies (statistical offices, archives, offices of program analysis, and the like) often need to be given the mandate to set policies and establish protocols that govern data management across sectors. For example, without a clear mandate a national records management office could not set rules for the preservation and destruction of government documents, making it impossible to undertake internal studies or investigations.

In addition to policy guidance, ministries of finance and planning and other cross-sectoral government bodies will need to make specific investments to support the scale-up of MDG services. These investments include (but are not limited to):

- Financial and accounting systems (banking systems, budget systems, and the like) to allow governments to allocate public funds and track spending.
- Central statistics and record keeping to allow

results to citizens and donors and to make midcourse corrections.

- Legislative systems, judicial systems, tax systems, and law enforcement to strengthen the rule of law, protect human rights, protect property rights, streamline and simplify administrative processes, and fight corruption.

### Identify interventions

Below are key categories of investments that are likely to be needed as part of a public management needs assessment.

#### *Financial and accounting systems*

Improving financing and accounting systems will generally require investments to ensure the speed, predictability, and transparency necessary for functioning public and private systems of exchange. National policy frameworks for budgeting, procurement, management of public investments, and accounting will also likely require complementary public investments in basic information technology, infrastructure, training, and salary support. Public investment may also be needed to support the national banking system.

Some key investments include:

- Training, salaries, and pay scales for financial and accounting staff in national, regional, and local financial offices.
- Training key administrative staff across departments in basic budgeting and accounting.
- Software and hardware for procurement, reimbursement, and so on.
- Infrastructure for improved financial services such as expanding networks of banking facilities, credit bureaus, consumer information dissemination systems, and automating financial systems.
- Regulatory and supervisory systems and

#### *Statistical systems and record keeping*

Effective national strategies rely on continuous and standardized systems and protocols for the collection, analysis, and dissemination of information. Such national institutions also depend on investments—to be reliably equipped with qualified staff, adequate information technology, and supplemental resources for special projects and to support the training of officials in all branches of government. Specific investments may include:

- Training and adequate salaries for staff in central statistical, information technology, and record keeping offices as well as all levels of government.
- Software and hardware for the collection, dissemination, and analysis of information from various branches of the civil service—for example, online licenses or procurement systems—as well as strengthening administrative data systems, such as vital registries.
- Technical investments to support digitizing and geo-referencing of statistical information.
- Supplemental funding for a periodic evaluation and reporting activities.

#### *Legislative systems, judicial systems, tax systems, and law enforcement*

Legislative systems, judicial systems, and law enforcement are key inputs to effective policy formulation and implementation. Structural and administrative systems such as tax systems are also very important. Like other segments of public administration, however, they rely heavily on basic investments in human resources (training, salaries, and pay scales), technological and physical infrastructure, and special initiatives. Some examples of necessary

Identify interventions
Define targets
Estimate resource needs
Check results

- Training for judges and law enforcement officials to more effectively enforce anticorruption, antidiscrimination, and other laws.
- Modern technological capabilities for law enforcement, including national criminal databases, information systems to improve response times, and adequate dissemination of information to local law enforcement.
- Adequate compensation of public officials to prevent corruption and ensure quality.
- Special funding for commissioning investigations and analysis of legislative and judicial effectiveness and equity.
- Staff and training to set up and maintain special offices to improve governance and fight corruption, such as a special ombudsman's office to evaluate claims.



## Country example

### Investing in public management in Cambodia

Recently, a team led by the Royal Government of Cambodia and including the World Bank, Asian Development Bank, and IMF investigated how necessary poverty-reducing services could be effectively delivered through the public sector. In addition to increased resource mobilization and priority setting, the team found that major improvements in public sector management were needed. One of the observations, for example, was that public and private cash flows were hampered by the lack of banking facilities outside the main urban areas.

The team identified specific short- and medium-term actions in public expenditure and financial management and the civil service that would improve service delivery right away and would ensure the necessary capacity building to allow for strengthening these systems in the medium term. Interventions include, for example, registration of government disbursement agencies and recipients of external finance in a central database; establishment of local budget departments; public expenditure tracking systems; and computerization of accounting systems; and preparation of a comprehensive pay and employment policy for the civil service.

The World Bank also undertook a detailed country financial accountability assessment that identified necessary policies, reforms, and investments for Cambodia's financial systems. They found that a broad reform agenda in public finance could not be undertaken unless the government received support to build a foundation of reliable, accurate, and timely public expenditure systems—through such basic activities as training staff, establishing standards, automating and computerizing systems, and establishing clear responsibilities.

## step 3

### PUBLIC MANAGEMENT

## See also

World Bank and Asian Development Bank. 2003. "Cambodia: Enhancing Service Delivery through Improved Resource Allocation and Institutional Reform. Integrated Fiduciary Assessment and Public Expenditure Review (IFAPER)." Report 25611-KH. Washington, D.C., and Manila.

## Define targets

For each of the interventions deemed necessary in this cluster, a needs assessment will be guided by quantitative benchmarks determined at the national level to track progress toward the goal of an efficient, transparent, and equitable system of public management. Two main types of targets will be useful for this exercise:

- Human resources targets that track the hiring and compensation of staff (for example, human resources staff members per government employee or salaries of public management staff at x percent of per capita GDP).
- Activity targets that track the implementation of public sector management strategies (for example, audit x percent of government agencies, undertake x national surveys, x percent of employees paid on time).
- calculate needs by adding an “overhead” mark-up to the cost of the direct services.

Specific suggestions for estimating costs of different components of public management:

- Costs of training and salaries for judicial and law enforcement staff. Calculate optimal law enforcement ratios for administrative units as well as for population (for example, x number of judges per district or 1 law enforcement officer per x number of people) and assess training (pre-service and in-service) as well as salary costs per worker.
- Basic financial and accounting systems. Calculate costs of overcoming specific expenditure and accounting constraints.
- Monitoring, evaluation, and quality control. Calculate costs for protocols.

Identify interventions
Define targets
Estimate resource needs
Check results

## Estimate resource needs

Where possible, resource needs estimates should be based on scaling up unit costs of specific interventions. When time or data constraints prevent detailed estimates, it may be feasible to

## Check results

Results for this cluster will vary by type of investment and country-specific needs. Below is one such example, a needs assessment for a comprehensive program of official statistics conducted by the PARIS21 Task Team in four countries.

Identify interventions
Define targets
Estimate resource needs
Check results

## See also

PARIS21 (Partnership in Statistics for the 21st Century) website: [www.paris21.org](http://www.paris21.org).

PARIS21 (Partnership in Statistics for Development in the 21st Century). 2004. “Summary Report on Six Case Studies.” Task Team on Improved Statistical Support for Monitoring Development Goals. Organisation for Economic Co-operation and Development, Paris. [[www.paris21.org/documents/1172.pdf](http://www.paris21.org/documents/1172.pdf)].

UNGIWG (United Nations Geographical Working Group). 2005. “UNGIWG Recommendations and Agreements.” New York. [[www.ungiwg.org](http://www.ungiwg.org)].

## Estimated annual cost of statistical activities to meet monitoring needs

Cost	Burkina Faso	Cambodia	Malawi	Moldova
Recurrent cost (US\$ millions)	1.5	0.7	1.0	1.7
Core cost (US\$ millions)	3.8	4.6	2.9	1.1
Share government-funded (%)	23.0	5.0	9.0	19.0
Share donor-funded (%)	31.0	26.0	47.0	55.0
Share unfunded (%)	47.0	69.0	44.0	25.0
Total core and recurrent costs (US\$ millions)	5.3	5.3	3.0	2.8
Recurrent costs as a share of core and recurrent costs (%)	28.0	13.0	26.0	61.0
Additional activities (US\$ millions)	1.0	2.5	3.0	1.9
Share government-funded (%)	15.0	13.0	6.0	2.0
Share donor-funded (%)	13.0	4.0	31.0	11.0
Share unfunded (%)	73.0	83.0	63.0	87.0
Total cost (US\$ millions)	6.3	7.8	7.0	4.7
Population (millions)	11.8	12.5	10.7	4.3
Cost per capita (US\$)	0.5	0.6	0.7	1.1

Note: Results do not include salary increases for statistical staff or larger capacity building activities, but do provide a good starting point for countries' own analyses.

## Completing the needs assessment: consolidating investment cluster strategies

The first step in creating a 10-year MDG framework is to consolidate all investments identified in the cluster strategies into a single, coherent document. Experience has shown that this consolidation is easiest when a focal point within the government, for example, the ministry of finance or planning, takes responsibility for aggregating and integrating the investment clusters. In practice, this generally means checking for consistency by identifying and eliminating duplication or omission between investment clusters, resolving any conflicts between recommended investments, and identifying remaining gaps in the investment framework.

For example, transport interventions may overlap with investments in cross-national infrastructure and trade capacity. It is important that these clusters be reconciled to avoid double-counting or inconsistencies. The consolidated MDG framework will contain one summary budget outlining the projected expenditures for meeting the MDGs.

A good example of the consistency checks countries will want to make across investment clusters is the needs assessment for secondary education. Without comparison across sectors, there is a danger that the national education strategy will not aim to yield sufficient numbers of qualified staff to carry out interventions in other cluster areas. It needs to be reviewed and revised as necessary based on the human resources needs in health, education, rural and urban development, and other clusters.

These numbers should then guide the national education strategy (for example, how many secondary schools to build) and will directly affect the costs of secondary, tertiary, and vocational education. This is another reason why it is important that needs assessments in all clusters quantify the numbers of secondary school, university, and vocational training graduates required.





**Develop  
a 10-year  
framework  
for action**

## Summary

To effectively translate the cluster needs assessments outlined in the previous step into a Millennium Development Goal (MDG)-based national development strategy, they have to be consolidated into a single coherent long-term (10-year) investment framework that charts the country's path toward the MDGs. This may take the form of a vision or long-term strategy document, already prepared by many countries. The 10-year framework will:

- Set priorities and sequence interventions.
- Specify the supporting policies and institutional reforms.
- Divide responsibilities among key actors.

The framework then serves as the basis for elaborating a three- to five-year MDG-based national development strategy.

The MDG-needs assessments outlined in the previous step yield a series of 10-year investment plans—one for each investment cluster. In the next step these investment plans need to be consolidated into one coherent, long-term (10-year) framework for action. Many countries already have long-term national strategies or vision documents, which can be adapted on the basis of the MDG needs assessment. Countries that do not already have a vision document may choose to prepare a standalone 10-year framework for action or instead opt for an informal 10-year strategy that informs the preparation of the MDG-based national development strategy (Step 5) by synthesizing the needs assessments and related policies.

## Sequence implementation of interventions

Regardless of its format, the longer-term framework for action will expand on the needs assessments by sequencing investments, identifying supporting policies and institutional reforms not explicitly addressed in the needs assessments, and assigning responsibilities for implementation. It will then form the basis for preparing the three- to five-year national development strategy.

As in the case of MDG needs assessment (Step 3), the process of developing the 10-year framework draws on the broadest possible expertise, including the actors described in Step 1. Their role will be critical in reaching decisions on sequencing, supporting policies, and delivery of interventions.

When implementation capacity is constrained by limited human resources, infrastructure, and management systems, governments will have to set implementation priorities. Priority-setting encompasses two elements: identifying how to sequence key interventions within each investment cluster and then deciding the sequence for rolling out the interventions across the different regions of a country. Though these decisions are most important in the early phase of the investment program, it is important that governments be encouraged to set priorities in a 10-year context to ensure that the projected rollout of investments is consistent with achieving the MDGs by 2015.

Important questions for national and local governments include:

- Given limited delivery capacity, which interventions, if any, should be implemented

- Should priority be given to parts of the country where interventions are easy to roll out (low-hanging fruits) or to parts where needs are highest regardless of cost?
- Can interventions be delivered without major infrastructure (as with long-lasting insecticide-treated bednets to prevent malaria transmission), or do they depend on networked infrastructure and delivery systems that impose a sequenced approach to expanding coverage (such as electricity and water supply networks)?
- How should countries sequence the delivery of urban and rural interventions, respectively?
- What is the appropriate timeframe for national, district, and local rollout?

It is recommended that interventions be delivered at the largest possible scale at the earliest possible point in time. Where capacity constraints make nationwide scale-up impossible, countries might





## Checklist

### Selecting investments for early implementation

In selecting interventions for implementation in the first few years of a scale-up strategy to reach the MDGs it would be important to identify:

- 1** Large-impact investments in Quick Impact Initiatives that do not require significant infrastructure and capacity to implement, such as provision of long-lasting insecticide-treated bednets to prevent malaria transmission.
- 2** “Capacity-critical” investments or investments needed to unlock capacity constraints for large-scale service delivery, such as training new doctors and nurses or establishing management systems. These investments typically have a long time lag and will thus need to be initiated as early as possible.
- 3** The appropriate timeframe for national, district, and local rollout.

the hardest hit regions to further equity and development.

### Quick Impact Initiatives

Governments can implement Quick Impact Initiatives immediately to achieve rapid progress within three years without large investments in infrastructure or capacity. They can be implemented quickly and be integrated into MDG-based national development strategies. Quick Impact Initiatives include but are not restricted to:

- Eliminating school and uniform fees to ensure that all children, especially girls, are not out of school because of their families’ poverty. Lost revenues can be replaced with more equitable and efficient sources of finance, including donor assistance.
- Providing impoverished farmers in Sub-Saharan Africa with affordable replenishments of soil nitrogen and other soil nutrients.
- Providing free school meals for all children using
  - Designing community nutrition programs that support breastfeeding, providing access to locally produced complementary foods, and, where needed, providing micronutrient (especially zinc and vitamin A) supplementation for pregnant and lactating women and children under age 5.
  - Providing regular annual deworming to all schoolchildren in affected areas to improve health and educational outcomes.
  - Training large numbers of village workers in health, farming, and infrastructure (in one-year programs) to ensure basic expertise and services in rural communities.
  - Distributing free, long-lasting, insecticide-treated bednets to all children in malaria-endemic zones to cut decisively the burden of malaria.
  - Eliminating user fees for basic health services in all developing countries, financed by increased domestic and donor resources for health.
  - Expanding access to sexual and reproductive health information and services—including

information and services—and closing existing funding gaps for supplies and logistics.

- Expanding the use of proven effective drug combinations for AIDS, tuberculosis, and malaria. For AIDS this includes successfully completing the 3 by 5 initiative to bring antiretrovirals to 3 million people by 2005.
- Setting up funding to finance community-based slum upgrading and earmarking idle public land for low-cost housing.
- Providing access to electricity, water, sanitation, and the Internet for all hospitals, schools, and other social service institutions, using off-grid diesel generators, solar panels, or other appropriate technologies.
- Reforming and enforcing legislation guaranteeing property and inheritance rights to women and girls.
- Launching national campaigns to reduce violence against women.
- Establishing, in each country, an office of science advisor to the president or prime minister—to consolidate the role of science in national policymaking.
- Empowering women to formulate and monitor MDG-based national development strategies and other critical policy reform processes, particularly at the level of local governments.
- Providing community support to plant trees to provide soil nutrients, fuelwood, shade, fodder, watershed protection, windbreak, and timber.

### **Capacity-critical interventions**

Capacity-critical interventions need to be implemented immediately to build the capacity for scaling up the delivery of MDG-related interventions. Only by frontloading these investments can national implementation capacity be increased over the longer term. Three

management systems, human resources, and infrastructure.

*Public sector management systems.* Bringing interventions to scale often requires more than doubling the health budget or doubling the number of schools in a country. It also makes it critical for countries to have management systems and people capable of operating them. As the scale of interventions increases, service delivery systems become more complex and require dedicated investment and skills. For example, the challenges facing the manager of a health system are fundamentally different from the challenges facing the director of a clinic. New skills become necessary: budgeting, procurement systems, project management, financial reporting and control, and interunit coordination.

Public sector management systems are a particularly important dimension of scale-up and essential for using increased resources efficiently (see Step 3 discussion for details). Improving public management systems will therefore be a high and early priority in national plans of action.

*Human resources.* Skills development is another crucial dimension of scale-up. MDG interventions almost always need to be delivered by trained people. To this end, MDG needs assessments estimate the required human resources and the number of people that need to be trained to achieve the MDGs. Special attention will need to go to scaling up pre-service training in the early years of the national strategy, since training may take several years.

As a general rule, training needs to be complemented with supportive human resource



## Issue

### Human resources for health

A recent report by the Joint Learning Initiative found that the world faces a “massive global shortage” of health workers and that more than 1 million more health workers will be needed in Sub-Saharan Africa alone if the continent is to have any chance of meeting the MDGs (JLI 2004). Some of this gap can be filled by attracting trained workers who have left the sector due to low pay or poor working conditions. But countries will need to make large investments in pre-service training to ensure that cadres are large enough to deliver the basic interventions needed to achieve the MDGs.

leave the public service, the sector, and even the country. To do this, an overall policy framework for human resources will need to ensure adequate compensation and incentives, decent working conditions, and opportunities for continual learning and performance-based promotion.

as electricity grid extension or infrastructure for improved water management to increase sustainable access to water. That is one reason we recommend that countries set priorities for planning and building such infrastructure in the early years of the 10-year MDG framework.

*Infrastructure.* To achieve the education and health goals some countries will have to make significant and immediate investments in infrastructure, such as schools and health posts.

**Other investments with long time lags**

In some cases infrastructure can be built quickly and scaled up in line with service coverage. In other cases construction of new infrastructure will need to be frontloaded because it may be necessary for scaling up investments in the MDGs. Long-term planning is particularly important for networked infrastructure, such

Other investments that take a long time to bear fruit and therefore need to be frontloaded are education and public health efforts to change ingrained patterns of behavior (for example, HIV/AIDS education) or demographic outcomes (for example, fertility rates). We recommend that countries make a special effort to identify investments with long time lags and ensure that they are made in time to contribute to achieving the MDGs.

## Design effective policies in support of MDG investments

Countries need effective policies and institutional reforms to support MDG interventions. Policies can be best described as the rules, procedures, and responsibilities of institutions ensuring effective implementation of MDG strategies. Interventions, by contrast, are concrete services, goods, and infrastructure

A shorthand way to distinguish between interventions and policies is that only interventions require coverage targets.

Many policies have a financial impact on the delivery of services that are important to take into account in a needs assessment. Examples include



## Issue

### Policies to support MDG investments

- *Civil service reform.* Human resources are a critical element of capacity development. Civil service policies—including accountability, recruitment, remuneration, promotion, and retention strategies—have an enormous impact on the functioning of public management systems. If public sector salaries are too low, the quality of public services is likely to suffer.
- *Regulatory reform.* Reforms of regulatory rules and institutions may be necessary to achieve the MDGs. In the energy sector, for example, tariff structures may need reform to improve revenue collection and the functioning of the system. New or strengthened oversight bodies may be necessary in some areas, such as institutions for environmental regulation and management. For example, Tajikistan's needs assessment summary document lists needed reforms in regulating farm activity.
- *Legislative reform.* Several investment clusters will often require new legislation or changes to existing laws. Slum upgrading typically requires changes to laws governing land tenure. Achieving environmental sustainability might require changes to public subsidy schemes or designations of new protected areas in consultation with local communities. Similarly, achieving gender equality will in most cases require new property rights and other legislation. These “stroke of the pen” policy changes are prerequisites for achieving the MDGs.
- *Decentralization and community involvement.* An MDG strategy will specify the administrative levels appropriate for making key decisions about MDG investments and their financing. Particularly in urban contexts, local authorities are best placed to oversee investments in basic infrastructure and urban services by working closely with communities. But decentralizing power and decisionmaking is a complex and necessarily gradual process. An MDG framework will thus outline key elements of a country's decentralization strategy, such as control and funding for implementation across various investment clusters.
- *Fiscal reform.* Achieving the MDGs often requires reforms to the tax code and to tax collection systems. Government revenues typically need to be increased over the medium term without harming the poor or placing undue strains on private sector development. Many countries will also need to increase tax revenues for local authorities—either by introducing taxes to be levied at the local level or by earmarking a share of national government revenues to local authorities.
- *Financing policies.* Decisions about cost recovery in the delivery of interventions will have dramatic consequences for levels of use. For example, user fees can be a significant barrier to use of essential social services, as demonstrated by their elimination in Uganda and Kenya. Lifeline tariffs that ensure the free provision of water or energy up to the minimum daily requirements for personal hygiene and cooking but charge for higher consumption have avoided waste while simultaneously improving access to clean drinking water and energy. In light of the implications for access and use, governments have to weigh various options for cost recovery. Deciding on the best way forward requires consultations with district and local governments as well as civil society organizations active at the local level. Private companies can also give important insights on optimizing financing mechanisms.



which will increase the demand for education and health services. All policies need to pay particular attention to promoting sustainable development, including private sector development and sustainable economic growth.

Policies specific to individual investment clusters are described in Step 3. Additional policies that generally need to be considered in 10-year

frameworks are summarized in the “issues” box, above. The extensive literature available from the UNDP, the World Bank, and other research organizations can guide countries in developing policies and institutional reforms to achieve the MDGs. Examples are the UNDP’s (forthcoming) *How-to Guide for MDG-Based National Development Strategies* and the World Bank’s PRSP sourcebook (World Bank 2002).

## Divide the work and assign responsibilities

By this stage, countries have prepared an investment framework and a menu of policy reforms consistent with the scaled-up delivery of key interventions. Before countries can move to a detailed three- to five-year national development strategy, it is important that they determine who will be responsible for coordinating and overseeing implementation of each set of interventions. Under the coordination of a focal point in the government, preferably in the ministry of planning or finance, the overall investment plan can be separated into discrete areas of responsibility and each area assigned to relevant line ministries and other implementing agencies.

Interventions can be delivered by the public sector, the for-profit sector, and local or international nongovernmental organizations. National governments bear the responsibility of guaranteeing and overseeing the provision of basic services to meet the MDGs. But delivery can be delegated to the private sector or civil society when it is more efficient or cost-effective to do so, as may be the case for water, energy, and transport. In other cases local authorities will lead in delivering key interventions. Regardless of

ensure sufficient access to services by rich and poor. This may require targeted public subsidies, even if service delivery has been contracted out to a nongovernmental organization or private company.

This process will also divide responsibilities between central government and decentralized levels of authority to the extent needed. Creating long-term strategies that can operate countrywide raises important questions. How will the intervention package need to change for different regions? Who will provide the lowest-cost delivery in each province? How will we know what changes need to be made in five years? In some cases, properly managed decentralization of authority will allow countries to handle such questions—allowing scale-up strategies to adapt to regional variation, increasing the efficiency and long-term viability of service delivery and improving the transparency and public participation in the national development strategy process.

Decentralization strategies have to allocate responsibility in three areas: planning, implementation, and financing.

*Planning responsibilities.* Decentralized planning



## Country example

### Intervention strategies to improve the effectiveness of the civil service in Cambodia

The government-led World Bank and Asian Development Bank study in Cambodia looked at the goals, strategies, and resources to improve the functioning and capacity of the civil service. A summary of the strategy:

#### Goals

1. Accelerate pay and employment reform.
2. Reorganize and redeploy staff to priority areas.
3. Improve service delivery.
4. Strengthen capacity to plan and manage the administrative reform.

#### Strategies

##### *Improve the quality of public administration*

1. Develop and operationalize a human resource management information system.
2. Improve the management of payroll, including automation.
3. Introduce a new employee classification system to promote staff on the basis of performance and seniority.
4. Meet needs of ministries relating to corporate (back office) services.

##### *Empower civil servants to be more effective and productive*

1. Maintain workforce stability by increasing the size of civil service.
2. Increase average civil service pay.
3. Introduce a system of allowances targeted to priority tasks and functions.
4. Implement priority mission groups.
5. Undertake further analytical work to investigate ways and means to accelerate pay and employment reform, including an operational review or functional analysis and options for establishment control.

As a key part of this strategy, it was estimated that average monthly salaries for civil service employees would need to be increased substantially to attract and retain qualified staff.

Medium-term objectives included increasing the average monthly civil service wage to the equivalent of the current minimum wage in the garment industry—from \$28 in 2002 to \$52 in 2006. The government also planned a comprehensive labor market survey to better determine necessary absolute and relative levels of compensation.

## step 4

goals and targets to operational objectives at the local level—and that mechanisms are in

decisions about how to reach those objectives. For example, slum upgrading and most infrastructure



## Country example

### Financing and implementing rural electrification in South Africa

In 1994 the South African government charged the South African utility Eskom with the ambitious task of electrifying some 300,000 houses a year in formerly black townships to achieve about 1.75 million house connections by 2000.

To finance the project Eskom came up with a remarkable way of using decentralization to minimize costs. It gave authorities in each region a set budget and instructed them to make as many connections as possible. When connection costs were high, consultants and contractors had to “sharpen their pencils” and come up with innovative ways of reducing the cost per connection. In the Eastern Region (KwaZulu-Natal Province) the cost per connection was cut in half over a short period, despite early skepticism.

Eskom also found that failing to involve community stakeholders led to delays, increasing connection costs. In response, the project developed “electrification committees” elected by the communities for that particular project. Community-based construction turned out to be the most efficient means of electrification, so Eskom employed and trained community members to do some of the identified tasks.

By 2000 the Eskom rural electrification reached its target of 1.75 million household connections. It also substantially reduced the unit cost of connection across the country.

Source: Stephen and Sokopo 2001.

local authorities working closely with community organizations.

*Implementation responsibilities.* As a general rule, countries should assign responsibility for the intervention to the level where action is necessary. In many cases this will include partnering with community groups for service delivery. For example, although the responsibility for maintaining an international highway system generally needs to lie with national transportation authorities, local officials may be best positioned to decide how and when to repair district and feeder roads and whether to use labor- or capital-intensive construction.

*Financing responsibilities.* For decentralization strategies to be effective, they must ensure that political and administrative responsibility for public interventions is linked to real budgets (and transfers of funds, where appropriate) and that adequate accountability mechanisms ensure equity and transparency at all levels. Financing frameworks should also be designed with long-term viability in mind, particularly where sources of funding will change from development aid to domestic taxation over the medium to long term. Authority over funds can, to the extent possible, be delegated to the lowest applicable level of administration.



## Country example

### Local development in Nicaraguan cities

For a decade the Local Development Programme (Prodel) has assisted poor people in eight cities and towns of Nicaragua. Its integrated approach to local development involves cofinancing small infrastructure and community projects and providing loans and technical assistance for housing improvements, and offering loans to microenterprises. In 10 years it has completed 484 projects in more than 230 neighborhoods, cofinancing sewerage and drainage systems, paved roads, footpaths, street lighting, schools, playgrounds, sporting facilities, and sites for the collection, disposal, and treatment of waste. Half the funding was provided by the Swedish International Development Cooperation Agency, with the rest mobilized by families and the municipal authorities.

Prodel's loan funds are made available through microfinance institutions. The technical assistance for households is provided by Prodel staff, who work directly with the households taking out housing improvement loans. Communities collaborate with local authorities in identifying, executing, and maintaining the infrastructure and services installed—a prerequisite for obtaining loans. The municipal councils are required to allocate resources to social infrastructure investments.

Several lessons are:

- Concrete alliances founded on tangible plans work better than community demands, which are often unrealistic about what authorities can deliver.
- Programs need to work with existing local institutions, which are closest to the demands and needs of users and are able to engage with them.
- It is possible to reduce the influence of political change on programs if clear rules are set for incentives and sanctions in the use of external resources channeled through the recipient government. Two success factors: recognize and meet the bank's need to meet the costs of loan supervision and the municipality's need to obtain cofinancing for maintenance.
- To support participation, municipal technicians need training and methodologies.

Source: UN Millennium Project 2005f.

## step 4

The details and integration of these three mechanisms will differ in each country, and any strategy will likely need several rounds of adjustment. The country examples from Nicaragua and Ethiopia give examples of successful strategies to decentralize responsibility in all three areas.

Many challenges to successful decentralization

physical resources of subnational administrative bodies. For example, if local planners lack basic training in financial accounting, it will be difficult to make budgets transparent or understandable. And in some cases processes for ensuring the prompt flow of resources from the center to the periphery need to be streamlined, because bottlenecks can impede the local use of



## Country example

### Ethiopia's Woreda Development Fund

The Ethiopian government has given considerable emphasis to decentralization and empowerment as a strategic move in its poverty reduction effort. With support from the United Nations Capital Development Fund, it is operating the Woreda Development Fund in six woredas (districts) of North Gondar Zone. Since 1997 the fund has piloted woreda-level systems for participatory planning and budgeting, implementation, and resource allocation between administrative tiers (woreda, kebele).

In planning and budgeting, the fund gives woredas authority over strategic districtwide projects (schools, health facilities, roads). The projects are planned and budgeted only if there is adequate funding to assure the completion, operation, and maintenance of a project. Kebele projects (such as a community water supply point) draw on participatory planning processes at the community level and allocate funds to each kebele for specific projects. Planning is facilitated by local government development teams comprising elected members, who receive technical support.

To implement capital investments, local governments use competitive bidding and hire private contractors where appropriate. They can determine which service arrangement makes the most sense for their locality and monitor progress to ensure that the project is completed as contracted or planned. For operation and maintenance, they assume responsibility for allocating enough resources to recurrent budgets, operation and maintenance, equipment and materials, and recruitment of suitable staff.

Funds for the projects are transferred directly to local governments through unrestricted block grants, based on predetermined criteria and formulas, with allocations publicly announced to enhance accountability. The approach also helps in mobilizing additional local resources. Communities contribute labor and local materials. Some also participate and assist in the efforts of local government to mobilize financial resources, including tax revenues.

Source: UNCDF 2003.

of local nongovernmental organizations and developing efficient procedures for channeling funds to them are also priorities, since these organizations are often best placed to deliver services, such as community HIV prevention or orphan support.

Decentralization strategies will need to be supported by robust public management investment plans that take into account the capacity building needed at all levels of administration (see Step 3, “Public Sector Management”).



**Write a three- to  
five-year national  
development  
strategy**

## Summary

We recommend that countries refine the operational details of the initial three to five years covered in their 10-year framework for action in a medium-term national development strategy. Like the 10-year framework for action, the three-to five-year strategy should be Millennium Development Goal (MDG)-based. It will cover the specific investments and policies required in the early years in much more detail than is provided in the 10-year framework.

In addition to the expanded set of operational details for the early years in the 10-year framework, the medium-term MDG-based national development strategy also includes a financial strategy based on an MDG-consistent macroeconomic framework and a medium-term expenditure framework. We also recommend that countries put in place an accountability mechanism to ensure effective use of resources and an evaluation mechanism to review development outcomes and inform mid-course adjustments. These elements provide the checks and balances to ensure successful implementation. This section describes the elements of these analyses and suggests a method for carrying them out.



The 10-year framework for action from Step 4 needs to be translated into a medium-term strategy and financing document, a national development strategy (or Poverty Reduction Strategy Paper where applicable). We recommend extending, where possible, the strategies and corresponding planning cycles to cover five years because this facilitates the planning of investments with a longer time frame (see Step 4). However, a shorter three-year development strategy can also be adequate provided that it is developed as part of a longer-term MDG framework.

The MDG-based national development strategy should detail the interventions, policies, and

institutional reforms covered in the first three to five years of the 10-year framework. As described in Step 4, particular attention needs to go to setting priorities, sequencing interventions, and assigning clear responsibilities for implementation. Countries can outline their decisions in a rollout strategy that specifies which parts of the country will be served first and how coverage will be expanded in subsequent years to reach the entire population.

The MDG-based strategy will also need to include the financing strategy and budget, as well as accountability and monitoring frameworks.

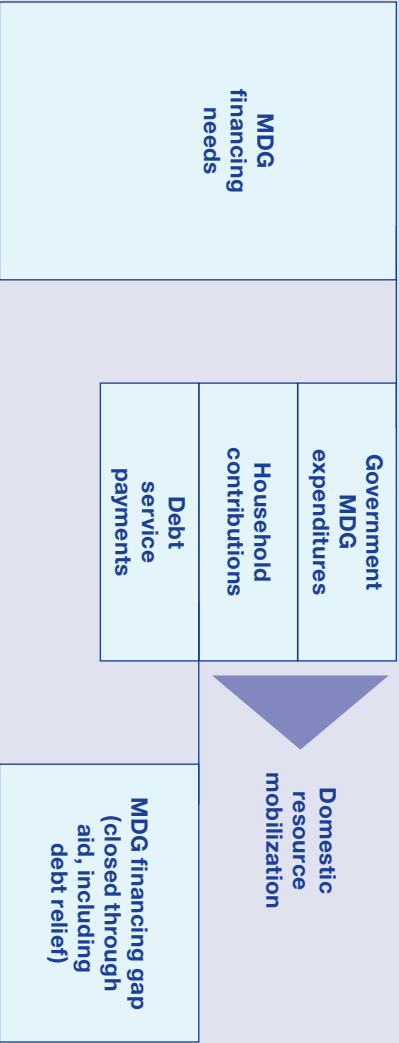
### Develop an MDG financing strategy

We recommend that countries use projected MDG expenditures to develop an MDG financing strategy that maps out government expenditures, specifies contributions from households and the private sector, and identifies the MDG financing

gap to be covered through increased aid and debt relief.

The main parts of an MDG financing strategy are illustrated schematically in the figure below.

Components of an MDG financing strategy



Domestic resource mobilization consists of household contributions and government MDG expenditures. If MDG financing needs exceed domestic resource mobilization, the resulting financing gap needs to be closed through more development assistance and debt relief.

### **Government MDG expenditures**

As a first step in developing an MDG financing strategy, countries will identify the current share of government expenditures that finance investments in the MDGs. This should include a detailed review of the government budget to identify nonpriority expenditures that can be redirected toward the MDGs. Countries will also need to review their allocation decisions among line ministries to ensure that they reflect the expenditures needed to meet each MDG. Projections of government expenditures on the MDGs can be derived from an MDG-consistent macroeconomic framework.

The UN Millennium Project has estimated that a typical low-income country may be able

to increase government expenditures by up to 4 percentage points of GDP over the next 10 years. But the scope for increasing domestic resource mobilization varies tremendously across countries. So each government will need to assess how much government expenditures can be raised with the help of detailed macroeconomic frameworks.

It is important to ensure that public expenditure variables are set in accord with the MDG needs assessment. When domestic resource mobilization is insufficient to meet the necessary expenditures, the MDG financing gap needs to be covered through enhanced debt relief and increased official development assistance (ODA) flows in the form of grants. Under these conditions—and provided that future ODA flows are predictable and exhibit low volatility—adequate monetary and fiscal policies can maintain macroeconomic stability, including a stable exchange rate and low inflation, even in the face of large increases in net ODA inflows. Problems associated with Dutch disease are real but can be managed through appropriate policy mechanisms.



## Issue

### Prepare an MDG-consistent macroeconomic framework

A macroeconomic framework identifies how public expenditures and revenues relate to key macroeconomic variables, such as GDP growth, national savings rates, private investment, inflation, and current account balances. There are several reasons why macro frameworks are critical for developing an MDG-based national development strategy.

First, they project the key fiscal variables that determine domestic resource mobilization, laying the foundation for an MDG financing strategy, as described below. Over the longer term fiscal projections can show how quickly a country can close its MDG financing gap and when it will be able to finance all MDG investments through domestic resources.

Second, macro frameworks can forecast inflation and real exchange rates—two central indicators of macroeconomic stability—and provide insights on how abrupt changes in either indicator can be minimized (see Issue box “MDGs and Dutch disease”). Third, a macroeconomic model can also provide insights on how governments should structure the tax system to protect poor people without unduly hurting private sector development and economic growth.

Finally, they offer another means to check the results of the MDG needs assessment. By entering the projected public investments from the needs assessment into the macroeconomic framework, planners can assess whether the resulting growth rate is consistent with achieving the poverty target using country-specific poverty-growth elasticities and incremental capital-output ratios. Any major discrepancies between projected investment needs can be adapted to prepare an MDG-consistent scenario.

Today, Poverty Reduction Strategy Papers typically begin with the premise of insufficient resources and ask: “What progress can be made given a fixed expenditure ceiling?”

Unsurprisingly, one typical answer is: “Not enough to meet the MDGs.” To develop MDG-based national development strategies, countries thus need to flip the question and first carry out an MDG needs assessment. The projected MDG expenditures can then be modeled in a macro framework that projects domestic resource mobilization, estimates the MDG financing gap, and computes the external finance and debt relief needed to achieve the MDGs.

Developing a robust macro framework typically requires sophisticated economic models, such as the revised minimum standard model developed by the World Bank. Many countries have their own tools or use models prepared with support from the international financial institutions. In most cases it is therefore not necessary to develop a macro framework from scratch because existing frameworks can be adapted to prepare an MDG scenario.



## Issue

### MDGs and Dutch disease

Rapid increases in aid inflows can raise macroeconomic issues that need to be managed carefully. One frequently cited issue is Dutch disease, the appreciation of the real exchange rate resulting in a “squeeze” of the tradable (export) sector.

Some of the externally financed MDG spending will be on nontradables and will likely lead to an appreciation of the real exchange rate. This appreciation, however, should not be substantial since the investments will raise supply-side productivity through improved human capital, infrastructure, agricultural inputs, and environmental management—instead of financing a consumption boom. An adequate exchange rate regime can further reduce any appreciation of the real exchange rate.

While a (small) increase in the real exchange rate may harm poor farmers and small-scale entrepreneurs selling to international markets, any such effect will likely be further offset by pro-poor public investments in health, education, infrastructure, and agricultural inputs, which increase households' disposable incomes (for example, by eliminating school and health fees). On balance, the poor are likely to gain substantially from MDG investments, which allow them to be more productive and lower the cost of essential public services.

Most macroeconomists agree that potential negative macroeconomic implications of increased assistance flows are manageable—and are far outweighed by the benefits of scaled-up investments in the MDGs as long as the aid flows are predictable, come in the form of grants, and target the productivity-boosting supply-side investments required to achieve the MDGs. Indeed, many countries have successfully absorbed large-scale aid over long periods of time. For example, since the mid-1990s Mozambique has absorbed annual ODA receipts averaging more than 40 percent of GDP without suffering from macroeconomic instability or crowding out the private sector.

## Household contributions

Building on work of the Education for All Initiative and the Commission on Macroeconomics and Health, we recommend that households not be required to pay for

essential services where such payments (user fees) have proven to be a major barrier to access, particularly for the poor. These areas include primary education, essential health services, and nutrition.



## Country example

### User fees reduce access to services

There is strong evidence that health user fees reduce access to health services, particularly for poor people. When health user fees were introduced in Kenya, outpatient attendance dropped by 27 percent at provincial hospitals, 46 percent at district hospitals, and 33 percent at health centers. In Zambia outpatient attendance fell by 35 percent after fees were introduced; in Ghana, by 40 percent (Burnham and others 2004). When Uganda eliminated user fees in 1999, attendance at health units increased by 50–100 percent, demonstrating suppressed demand (WHO 2003).

School fees are also a barrier to access. When Malawi ended fees in 1994, enrollment increased by 51 percent. Uganda abolished fees in 1996, and enrollment immediately increased by 70 percent. Tanzania abolished fees, and net primary enrollment increased from 57 percent to 85 percent in a year. In Kenya the elimination of fees added 1.2 million students to the school system (Kattan and Burnett 2004).

Household contributions in the remaining areas should be based on affordability. One approach to estimating household contributions consists of dividing the population into different income groups, with each contributing different shares of capital and operating costs depending on its means (UN Millennium Project 2004b). A core assumption is that people living below the poverty line do not contribute household funds to the MDG investments.

### Official development assistance

When MDG financing needs exceed domestic resource mobilization, countries need to fill the resulting MDG financing gap if they are to

achieve the MDGs. If opportunities for cutting public expenditures devoted to nonpriority areas and increasing government resources have been exhausted, increased development assistance will be needed in the form of debt relief, concessional loans, or grants. *Investing in Development* (UN Millennium Project 2005h) presents preliminary estimates of MDG financing gaps for five countries (see table). In many low-income countries up to 60 percent of MDG expenditures will need to be financed through grants and debt relief. To be effective, as much of this assistance as possible should be in the form of budget support and harmonized among development partners.

## Per capita MDG investment needs and MDG financing gaps in Bangladesh, Cambodia, Ghana, Tanzania, and Uganda, 2006–15

2003 U.S. dollars per capita

	Bangladesh			Cambodia			Ghana			Tanzania			Uganda		
	2006	2010	2015	2006	2010	2015	2006	2010	2015	2006	2010	2015	2006	2010	2015
<i>MDG investment needs</i>															
Hunger	2	4	8	4	7	13	3	5	12	4	7	14	3	5	10
Education	11	17	25	15	19	22	17	19	22	11	13	17	14	15	17
Gender equality	2	3	3	2	3	3	2	3	3	2	3	3	2	3	3
Health	13	19	30	14	21	32	18	24	34	24	33	48	25	32	44
Water supply and sanitation	4	5	6	3	5	8	6	7	10	4	5	12	2	3	9
Improving the lives of slum dwellers	2	3	4	3	3	4	2	2	3	3	3	4	2	2	3
Energy	20	19	20	9	13	23	13	15	18	14	15	18	6	10	19
Roads	12	21	31	12	21	31	11	10	10	13	21	31	13	20	27
Other <sup>a</sup>	8	9	13	8	9	13	8	9	13	8	9	13	8	9	13
<b>Total</b>	<b>74</b>	<b>100</b>	<b>140</b>	<b>71</b>	<b>101</b>	<b>148</b>	<b>80</b>	<b>94</b>	<b>124</b>	<b>82</b>	<b>111</b>	<b>161</b>	<b>75</b>	<b>100</b>	<b>143</b>
<i>Sources of financing</i>															
Household contributions	8	10	14	9	13	18	9	11	15	9	11	17	8	9	14
Government expenditures	23	33	49	22	30	43	19	27	39	24	32	46	27	35	48
MDG financing gap	43	56	77	40	58	87	52	57	70	50	67	98	41	56	80
<b>Shortfall of ODA for direct MDG support over 2002 level</b>	<b>42</b>	<b>55</b>	<b>75</b>	<b>22</b>	<b>40</b>	<b>69</b>	<b>36</b>	<b>41</b>	<b>54</b>	<b>35</b>	<b>52</b>	<b>83</b>	<b>29</b>	<b>44</b>	<b>68</b>
For comparison: ODA for direct MDG support, 2002 <sup>b</sup>	1			18			16			15			12		

*Note:* Numbers in table may not sum to totals due to rounding. Results describe MDG investment needs excluding expenditures for capacity building.

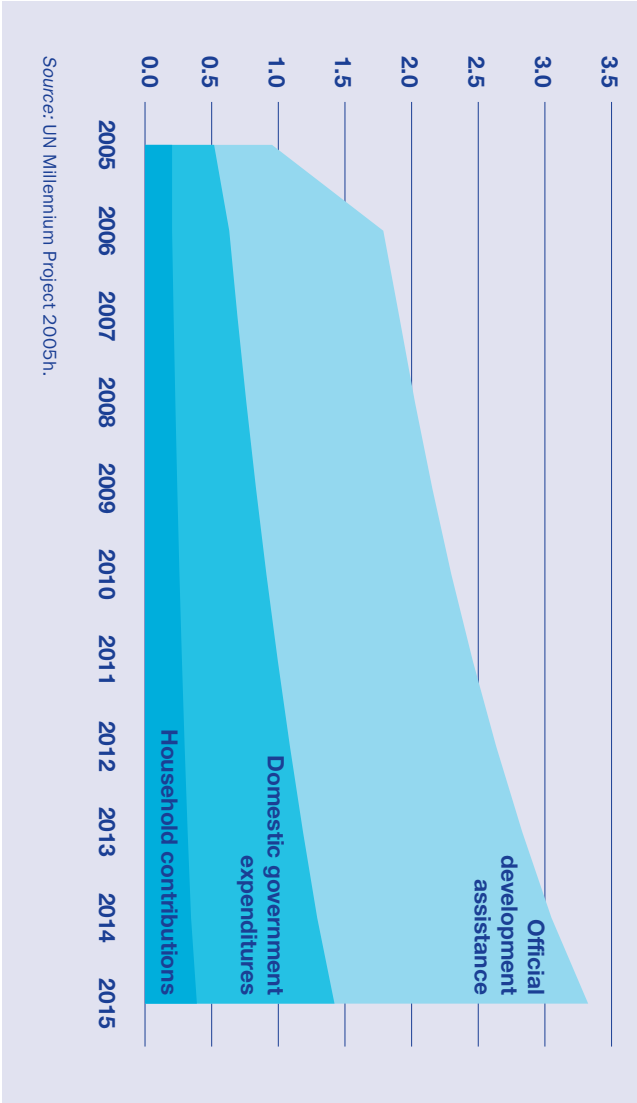
a. For MDG interventions not yet included in MDG needs assessments due to a lack of data (interventions such as large infrastructure projects, higher education, national research systems, and environmental sustainability). Period average is \$10 per capita for each country.

b. Calculated as net ODA minus technical cooperation, debt relief, aid to nongovernmental organizations, emergency assistance, and food aid, using data from OECD/DAC.

Source: UN Millennium Project 2005h.

The exact flow of investments over time and the respective contributions from households, government expenditures, and increased ODA will vary by country. For Ghana, our estimates suggest that direct investments in the MDGs need to rise from roughly \$80 per capita in 2006 to \$124 by 2015 (see figure). Even after accounting for a near doubling of domestic resource mobilization between 2006 and 2015, the country's MDG financing gap is projected to rise from \$52 per capita to \$70.

Scaling up public investments in the MDGs in Ghana



A concern frequently raised is that such an increase in ODA will threaten macroeconomic stability and weaken the export sector through an appreciation of the real exchange rate. Although this question has not yet received a precise treatment in the context of the MDGs, it is likely that most of the potential negative effects of increased ODA can be averted by granting adequate debt relief and ensuring that incremental ODA is provided in a predictable manner and in the form of grants.



## Create an MDG-consistent medium-term expenditure framework

The MDG-based national development strategy needs to be translated into an operational medium-term expenditure framework (MTEF) that links MDG interventions to specific allocations in the national budget. A country's national development strategy can be MDG-based only if the MTEF and annual budgets are consistent with the MDG needs assessment and financing strategy.

According to the World Bank's *Public Expenditure Management Handbook*, "The

MTEF consists of a top-down resource envelope, a bottom-up estimation of the current and medium-term costs of existing policy and, ultimately, the matching of these costs with available resources...in the context of the annual budget process" (World Bank 1998, p. 46). In practical terms the MTEF translates the national development strategy into a multiyear budget framework, allocating expenditures to specific sectors and uses.

### See also

Dean, Peter N. 1997. "Medium-Term Expenditure Frameworks: Improving Their Chances of Success with Particular Reference to Selected African Countries." World Bank, Washington, D.C.

Le Houerou, Philippe, and Robert Taliencio. 2002. "Medium-Term Expenditure Frameworks: From Concept to Practice. Preliminary Lessons from Africa." World Bank, Washington, D.C.

It is difficult to overstate the importance of developing an MDG-consistent MTEF. Too many Poverty Reduction Strategy Papers are still disconnected from MTEFs and budget frameworks. Resources are rarely programmed in accordance with the strategy documents, which themselves tend to be constrained. To overcome this disconnect, countries need to combine MDG

expenditure projections derived from the needs assessment and the MDG financing strategy into an MTEF that then guides the annual budget process. Such an MTEF can either be incorporated in the MDG-based national development strategy or presented as a separate planning document covering the same three- to five-year period as the national development strategy.



## Country example

### Uganda's medium-term expenditure framework—linking long-term planning frameworks with budgeting systems

Uganda is employing a medium-term expenditure framework (MTEF) to link its long-term planning framework with its budgeting systems. The long-term planning framework, developed by the Planning Authority, translates a 30-year vision for the country into 10-year milestones, 5-year investment plans, and annual budget frameworks. The five-year investment plan, or Poverty Action Plan, is linked to a budgeting system, or MTEF, to ensure that the plans are fully resourced for the entire implementation period.

The MTEF is a critical part of the long-term investment strategy and its effective implementation. It allows both the government and donors to commit funds for the entire implementation period, based on agreed planning priorities and resource requirements. As a result, donors have become more willing to move funding from project financing toward direct budget support—giving the Ugandan government greater ability to achieve its own poverty reduction objectives. Another important benefit for the government is that the MTEF allows the country to “protect” key social expenditures to minimize the risk of sudden changes to these budget items. This has been critical, for example, in sustaining increased staff levels in the education sector.

## Establish public accountability mechanisms

The MDG-based national development strategy should include provisions for establishing effective public accountability mechanisms—to ensure proper and effective use of government resources and development assistance. The accountability mechanisms serve two main purposes. First, they put rigorous accounting and reporting systems in place to identify exactly how funds have been spent, thereby increasing accountability to development partners. Second, they provide opportunities for public participation and external review and consequently empower constituencies to examine their government's actions. Together, these mechanisms enable stakeholders to hold decisionmakers accountable for their performance

and ensure the effective and transparent use of funds.

In addition to ensuring that budgets are developed transparently, with all line items clearly linked to concrete, monitorable outputs, accountability mechanisms need to track expenditures, disbursements, and their corresponding outputs. In education, an accountability system would record expenditures for teacher salaries. It would also keep track of the number of teachers actually employed using these funds. Annual reviews of expenditures and outputs should enable planners to make adjustments while still adhering closely to planned levels of investment, as described in the three- to five-year strategy.

### Checklist

#### Accountability measures

Accountability measures enable planners to track performance against targets specified in the three- to five-year strategy. At a minimum, they should enable independent third parties to identify possible discrepancies with the three- to five-year implementation framework by tracking:

- Expenditures against each budget line item.
- Outputs (such as number of bednets purchased and deployed).
- Unit costs.

Some instruments for promoting transparency and accountability include:

- Periodic public expenditure reviews.
- Public parliamentary review.
- Advance publication of all project documents.
- Formal channels for civil society participation in tracking resource flows.
- External auditing by private entities.



## Example

### Accountability measures at the Global Fund

The Global Fund to Fight AIDS, Tuberculosis and Malaria disburses billions of dollars each year to developing countries to fund public health projects and programs. It has implemented practical fiduciary arrangements to ensure that revenues are used efficiently and for intended purposes. A summary of its policies is presented here for demonstrative purposes; national scale-up programs will naturally need to adapt fiduciary mechanisms to their specific needs.

Under the Global Fund's system local agents that are partners of the Global Fund review principal recipients of Fund grants to assess whether they meet the Global Fund's minimum requirements for fiduciary responsibility. These minimum requirements include:

- **Financial management systems that:**
  - Can correctly record all transactions and balances, including those supported by the Global Fund.
  - Can disburse funds to subrecipients and suppliers in a timely, transparent, and accountable manner.
  - Can support the preparation of regular reliable financial statements.
  - Can safeguard the principal recipient's assets.
  - Are subject to acceptable auditing arrangements.
- **Procurement and supply management systems that can:**
  - Adequate health expertise (HIV/AIDS, tuberculosis, malaria) and cross-functional expertise (finance, procurement, legal, monitoring and evaluation).
  - Provide a basic procurement supply and management plan.
  - Deliver to the end-user adequate quantities of quality products in a timely fashion.
  - Provide adequate accountability for all procurement conducted.
- **Institutional and programmatic arrangements that include:**
  - Legal status to enter into the grant agreement with the Global Fund.
  - Effective organizational leadership and management, and transparent decisionmaking and accountability systems.
  - Adequate infrastructure and information systems to support the implementation of proposals.
- **Monitoring and evaluation arrangements that can:**
  - Collect and record programmatic data with appropriate quality control measures.
  - Support the preparation of regular reliable programmatic reports.
  - Make data available for the purpose of evaluations and other studies.

Principal recipients of grants are also required to submit to annual external audits using an approved auditing agency. These audits assess whether expenditures have been consistent with the grant agreement. The Global Fund contracts with local fund agents at the national level to review all audit reports and assess the performance of the grantee. It uses these assessments to inform future grantmaking decisions, rewarding strong performers and helping poor performers improve their accountability frameworks.

For more information on the Global Fund's fiduciary mechanisms, visit [www.theglobalfund.org/en/about/policies\\_guidelines/](http://www.theglobalfund.org/en/about/policies_guidelines/).

It is critical to empower key stakeholders—such as parliaments, the judiciary, nongovernmental organizations, and development partners—to review data and standards for budget processes and expenditures. These players can all improve

accountability by holding officials responsible for performance. The implementation strategy can specify intervals for countries to carry out reviews of public expenditures.



## Country example

### Public involvement in accountability

In many countries accountability mechanisms have dramatically improved the efficiency of resource use. In Uganda the government published data on monthly transfers of capititation grants to each school district in national newspapers and their local-language editions.

Primary schools and district offices were also required to post notices of actual receipts of funds for everyone to see. Citizens could clearly compare the amount set aside for the school with the amount that schools actually received.

Equipping citizens with this information significantly improved performance of the grant scheme. Between the mid-1990s and 2001 the proportion of funds lost to corruption fell from 80 percent to just 20 percent. By pursuing an inexpensive strategy of mass information, Uganda dramatically reduced corruption and improved the efficiency of its support to primary education (Reinikka and Svensson 2004a, 2004b).

In Gujarat, India, Development Initiatives for Social and Human Action pioneered participatory budget analysis in 1992 by engaging in reviews of budget documents, focusing on agency allocations and their intended beneficiaries and discrepancies between policy statements and actual allocations. Short budget briefs, which now number about 30 a year, covering agencies that are most involved in poverty reduction, provide budget data and analysis in an accessible form. Observers credit DISHA with improving links between planning and budgeting and facilitating the release of funds to priority sectors (World Bank and Asian Development Bank 2003).

## **Set up mechanisms for periodic review of development outcomes**

The MDG-based national development strategy should also lay out mechanisms for monitoring and periodic review of progress on development outcomes. Regular monitoring of key development indicators in a systematic evaluation process offers the opportunity to make mid-course corrections and will inform the strategies for the next national development strategy. This is particularly important in the case of unanticipated performance obstacles when countries fall behind in projected outcomes despite having made all planned investments.

To ensure a periodic review of development outcomes, countries need to develop processes for the regular collection and analysis of appropriate data. To the extent possible, these data should be disaggregated by gender, region, ethnicity, and so on (see Step 2). For example, in the education

sector, a five-year review would evaluate the amount of money spent on salaries and the number of teachers employed against planned levels. But it would also measure outcome targets, such as the gross primary enrollment rate, and compare progress against the projections in the long-term framework.

Results of development strategy evaluations should be published in national MDG reports that outline progress to date, compare it with short- and long-term targets, and recommend strategies for putting the country on track in areas where it has fallen behind. They need to be available in time to inform Consultative Group meetings and similar forums where mid-course adjustments to the investment strategies and policies can be agreed.



## Issue

### **Building systems for monitoring and evaluation**

Sustained investments in modern information and communications technologies may be necessary to facilitate the collection and dissemination of information. These investments enable planners to monitor progress more efficiently and promote broader public sector transparency. Likewise, investments in statistical capacity may be needed to standardize the collection, processing, and use of relevant statistical data. The Marrakech Action Plan for Statistics sets out targets and interventions for countries to use in strategic planning processes for improving statistical capacity.

Monitoring essential socioeconomic data for national MDG-based planning and evaluation may require specialized central information management systems. For example, DevInfo, an open source database platform developed by UNICEF, is specifically designed to assist governments in collecting, amalgamating and analyzing national MDG indicators. Visit [www.devinfo.org](http://www.devinfo.org) for further information.



**Making it  
real—  
the MDG  
compact**

## Drafting an MDG compact

As a final step in the preparation of an MDG-based national development strategy, we recommend that governments, donors, international organizations, and other critical stakeholders sign a compact committing themselves to achieving the MDGs. This compact would be designed to outline how each party will contribute to implementing the strategy. It should be drafted jointly after the MDG-based strategy has been carefully reviewed and approved by all partners.

Specific commitments of the government may include agreements to:

- *Commit to outcomes.* If adequate financing is available, the government can commit to achieving the outcomes and interim milestones set out in the MDG-based national development strategy.

- *Ensure transparency.* The national government can ensure transparent implementation of the MDG-based strategy by hiring an independent auditor to review budget disbursements and track the funds used. We recommend that the reports of the auditor be made public and provided to the national government and its development partners.

- *Engage communities.* The compact can include a detailed government strategy to engage communities, civil society organizations, and the private sector in the design, implementation, and monitoring of the MDG-based national development strategy. These groups are essential to ensuring that funds are used effectively for the intended

effective service delivery or by monitoring the government's use of these funds.

- *Promote decentralized funding and service delivery.* We recommend that the national government consider the extent to which it can commit to decentralizing finances and the responsibility for delivering essential services needed to achieve the MDGs to district and local governments.

Specific commitments of development partners may include agreements to:

- *Provide sufficient aid to implement the MDG-based national development strategy.* We recommend that donors commit to increasing the volume of aid to levels specified by the MDG-based strategy and the medium-term expenditure framework. This aid would be made available for a three- to five-year period to improve predictability and allow for investments with long-term timeframes. Additional debt relief may also be granted, as necessary.

- *Provide high-quality aid.* Donors can lessen transaction burdens on the national government and nonstate actors by harmonizing their aid disbursements and reporting requirements. Donors can also commit to targeting aid toward service delivery and direct investments in the MDGs, as specified in the MDG-based national development strategy. We recommend that official development assistance be largely grants-based and provided as budget support

- *Provide technical support.* Donors can provide technical support to governments in order to strengthen their ability to simultaneously plan, manage, and deliver a large number of services simultaneously across sectors. Examples of this technical support include training staff in line ministries in human resource management, financial accounting, and record keeping.
- *Monitor implementation of the compact.* International organizations are uniquely placed to monitor the compact's implementation and ensure that each side meets its commitments. To this end they can report regularly on progress toward implementing the MDG-based national development strategy.

Specific commitments of the international organizations may include agreements to:

- *Provide technical support.* International agencies with sector-specific knowledge, such as the FAO, UNICEF, and WHO, can commit to assisting governments in preparing and implementing the MDG-based national development strategy.
- The compact can spell out specific responsibilities of civil society organizations and other stakeholders. These may include the delivery of key social services or the monitoring of public investments in the MDGs. A draft compact is outlined at the end of this section.

### See also

UN Millennium Project. 2005. *Investing in Development: A Practical Plan to Achieve the Millennium Development Goals*. Earthscan. New York [available at [www.unmillenniumproject.org](http://www.unmillenniumproject.org)]

## Monitoring the MDG compact

The implementation of the compact needs to be reviewed regularly to ensure that all signatories are following through on their agreed responsibilities as effectively as possible. In addition, the MDG-based strategy and the 10-year framework will need to be periodically revised in light of the pace of progress toward the MDGs, the observed effectiveness of interventions, and the cost of implementing them. Such changes can be addressed at reviews like those proposed below.

### Six-month check-in

Every six months the MDG steering committee, or other appropriate body, can chair a meeting to review the compact to monitor progress in financing the MDG-based national development strategy and to track the effective use of funds. This review should include sector ministers as well as high-level representatives from the

development partners. Importantly, at this meeting independent auditors can be called on to present their reports on the effectiveness of implementation and use of funds.

### Expanded annual consultative group meeting

An expanded consultative group should meet annually for a high-level review of the MDG-based national development strategy and the compact. This meeting would be attended by high-level government officials and key ministers, along with top officials from the Bretton Woods institutions, UN agencies, and donor organizations. Its purpose is to review progress on the MDGs and the required budget for the following year. Any changes to the compact or to the direction and strategy of the MDG-based strategy would be agreed at this meeting.

# A sample template for the MDG Compact

## MDG Compact between the Government of [Country] and [Development Partners]

### 1. Signatories

Government of [Country]  
[Head of State]

[Development Partner 1]  
[Head of Agency]

[Development Partner 2]  
[Head of Agency]

[UN Country Team]  
[Resident Coordinator]

[World Bank/International Monetary Fund]  
[Country Director]

### 2. Statement of shared intent

We, the Government of [Country] and [Development Partners], state that it is our shared intent to achieve the Millennium Development Goals (MDGs) by 2015, as pledged in the landmark Millennium and Monterrey agreements. We recognize that the MDG-based national development strategy developed by the Government of [Country] is a well designed strategy for scaling up the investments needed to achieve the MDGs in [Country] by 2015. We therefore will provide our full and sustained commitment to this strategy by undertaking the duties specified in this compact, with the unwavering intent of achieving the MDGs in [Country] by 2015.

### 3. Time period

This compact covers the period from [Date] through [Date].

### 4. Duties of national government

In line with our shared intent to achieve the MDGs, the Government of [Country] is fully committed to implementing its MDG-based national development strategy. To this end, the Government agrees to implement the strategy effectively, and to make efficient use of the available funds for this purpose, by undertaking the following duties:

**4a. Commitment to outcomes.** The Government commits to achieve the outcomes and interim milestones set out in the MDG-based national development strategy, provided that adequate financing is made available.

**4b. Ensure transparency.** The Government agrees to an independent monitoring and auditing system to ensure the effective use of available funds. [Insert detail on the auditing process]

**4c. Engage communities.** The Government agrees to engage citizens, communities, civil society organizations, and the private sector in the implementation and monitoring of the MDG-based national development strategy in order to increase the transparent and effective use of available funds. [Insert detail on community engagement]

**4d. Promote decentralized funding and service delivery.** The Government agrees to devolve responsibility for the funding and delivery of essential services to increase the effective use of

available funds. [Insert detail on the flow of funds to districts]

#### 4e. Other

### 5. Duties of development partners

In line with the shared intent to achieve the MDGs, the above listed development partners are fully committed to supporting the implementation of the MDG-based national development strategy developed by the Government of [Country]. To this end, the development partners agree to provide the following financial and technical support to the Government of [Country]:

**5a. Financial support.** The development partners agree to increase the volume of aid to levels specified in the MDG-based national development strategy and medium-term expenditure framework.

Development assistance will be provided each year on [specify dates], in order to ensure predictability and timeliness of the aid. The level of aid will be reviewed and adjusted annually, based on remaining needs and effective use of funds.

2005–2006: [Insert amount]

2006–2007: [Insert amount]

2007–2008: [Insert amount]

2008–2009: [Insert amount]

2009–2010: [Insert amount]

**5b. Harmonization.** The development partners agree to pool their funds to support the government budget. Development partners will harmonize reporting requirements such that the Government can prepare a single biannual report for use of all partners. [Insert detail on harmonization procedures]

**5c. Technical support.** The development partners agree to help the Government strengthen its ability to plan, manage, and deliver the services specified in the MDG-based national development strategy. [Insert detail on specific areas of support]

### 6. Monitoring results

The Government of [Country] and [Development Partners] will regularly monitor the results of the MDG-based national development strategy, as well as the performance of signatories in enacting the duties outlined in this compact. Independent auditors (specified below) will monitor the government's use of funds and track their impact on the output and outcome indicators specified in the MDG-based strategy.

**6a. Auditors.** The following independent auditors have agreed to monitor the use of funds for scaling up the investments needed to achieve the MDGs:

[Independent Audit Agency 1]  
[Head of Agency]

[Independent Audit Agency 2]  
[Head of Agency]

**6b. Review schedule.** Every six months, a formal meeting will be convened to review the signatories' performance in fulfilling this compact. This review will be chaired by [Insert title] and will include [Insert titles].

Every 12 months, a high-level review of the MDG-based national development strategy and this compact will be convened by the Head of State and attended by [Insert titles] from development partner agencies.

**7. Compact renewal**

This compact ends on [Month] 2010 and at that time will be subject to renewal negotiations between the Government of [Country] and [Development Partners]. Renewal of this compact will be based on signatories' performances in

fulfilling this compact. A minimum standard for achievement in fulfilling this compact, as detailed below, may be used to guide renewal decisions: [Insert minimum standards of achievement]

**8. Signatures**



# Tools

## Checklist for MDG-based national development strategies

**For a national development strategy to be truly Millennium Development Goal (MDG)-based, it needs to do much more than mention the MDGs as aspirations. It needs to be linked systematically with the MDG targets and timelines—and be based on a detailed assessment of the public investment strategies needed to achieve the MDGs. As a general rule, one can apply the following five-point checklist to review whether a strategy is really MDG-based.**

### **1. Ambition—Are the targets aligned with the MDGs?**

The simplest thing to evaluate is whether a national development strategy's targets are aligned with the MDGs. Are they equal to the MDGs, more ambitious, or less ambitious?

### **2. Scope—Is the strategy aligned with all of the MDGs?**

Many Poverty Reduction Strategy Papers refer to the MDGs by name but discuss only a few of them. But even if a national development strategy sets MDG-consistent targets for, say, education, it also needs to set MDG-consistent targets for health, hunger, and the rest of the MDGs. Moreover, issues such as the environment, gender equality, and urbanization need to be addressed in an integrated manner.

### **3. Rigor—Are the targets substantiated with solid analysis of the needed inputs?**

Many national development strategies set lofty targets, often much more ambitious than the MDGs, without a clear plan on how to achieve them. For instance, a country could aim to cut its child mortality rate by 80 percent within 10 years, but not have a clear intervention-based strategy for achieving the target. Outcome targets are crucial, but still input targets are also crucial for achieving outcomes. It is important that all necessary investments be included in an MDG-based strategy. All too often major investments in transport and energy are not included in existing strategy documents, even though the MDGs cannot be met without them.

### **4. Timeframe—Is the strategy grounded in a long-term assessment of needs?**

Most national development strategies cover only a three- to five-year period and are not grounded in an assessment of long-term investment and policy needs. Critical capacity constraints are typically not addressed since they would require long-term investments in training and human resources—such as doctors and nurses, who require many years of training—or infrastructure development plans. To be MDG-based, a national development strategy needs to be embedded in a decade-long needs assessment and action plan that works backward from the MDGs to identify the required sequence of investment and policies.

## **5. Financing—Is the budget consistent with the level of inputs needed to achieve the MDGs?**

Often national development strategies do not have budgets or expenditure frameworks linked to the MDGs. Where they exist, macroeconomic frameworks are typically set before designing sectoral investment strategies, regardless of the investments needed to reach the MDGs (Oxfam 2004). Instead, MDG-based budgets should be set from a careful assessment of how they will meet a population's needs. For example, the World Health Organization Commission on Macroeconomics and Health outlined the baseline costs of a scaled-up functioning health system at \$30–\$40 per capita (WHO 2001). The UN Millennium Project has identified similar benchmarks for other sectors.

If one sees a \$4 per capita annual public health budget as part of a strategy to achieve the MDGs, one knows that the budget has not been properly linked to a full needs assessment. At a deeper level of detail, particularly if cost estimates are conspicuously low, one needs to inquire whether the budget includes full costs of service delivery—for instance, capital and operating costs. Operating costs are very often overlooked, consigning strategies to a low probability of sustainable implementation.

These five questions can guide the evaluation of an MDG-based national development strategy or a Poverty Reduction Strategy Paper. Note that they are separate from questions of implementation. Even the best national development strategy needs to be systematically implemented and managed through benchmarking, results-based management, and a medium-term expenditure framework.

## Checklist for MDG interventions

### Intervention area 1: investments in rural development

Investments in rural development include interventions in poverty and hunger reduction; domestic water supply; sanitation, and water management infrastructure; rural transport; and rural energy services.

#### Poverty and hunger reduction

##### *Increasing agricultural productivity*

*Investments in soil health.* Combinations of mineral fertilizers, agroforestry (use of trees to replenish soil nutrients), green manures, cover crops, return of crop residues, and soil erosion control, as appropriate, depending on soil characteristics, partly financed by market-oriented smart vouchers to food-insecure farmers.

*Small-scale water management.* Development of water management techniques and structures, pumps, drip irrigation, wells, and the like, as appropriate, partly financed by market-oriented smart vouchers to food-insecure farmers.

*Improved inputs.* Provision of seeds of improved varieties of crops, pastures, and trees, as well as improved breeds of livestock and fish, \* with delivery systems accessible to food-insecure farmers, such as community tree nurseries.

*Farm diversification.* \* Incentives to farmers to diversify to high-value livestock, vegetables, and tree products, once they are food-secure.

*Extension services.* Strengthening of extension services with village-level paraprofessionals that have a strong participatory approach and up-to-date knowledge of soil health, small-scale water management, improved germplasm, high-value products, and other ecologically sound agricultural techniques.

*Agricultural research.* Increased investments in national research systems for agriculture and natural resource management to 2 percent of agricultural GDP.

*Special interventions to reach women farmers.* Recruitment and training of women extension workers; provision of inputs (seeds, fertilizers, implements) targeted to reach women; promotion of women's property rights to land, water, trees, and fisheries, and access to information on agriculture, nutrition, marketing, finance, and environmental protection.

##### *Linking farmers to markets*

*Storage, marketing, and agroprocessing facilities.* \* Construction of warehouses to reduce postharvest losses, construction of market spaces, provision of training and equipment to encourage small-scale

agroprocessing industries in rural areas, supporting shifts to high-value farming and skill building, supporting rural input traders, and providing access to market information.

*Agrodealer networks.\** Fostering the emergence of local agrodealers who would sell fertilizers, seeds for agroforestry, green manure, water management equipment, and improved seeds; redeem smart vouchers; and receive training from extension workers.

*Support to farmer associations.\** Investments to support farmer and rural laborer associations to organize to improve negotiating price outcomes and access to markets, with emphasis on cell phones and Internet access modeled after the “biovillages” in South India and the Hunger Project’s “epicenters” in Africa.

*Access to credit.\** Extension of the formal banking system and provision of microcredit services.

#### *Nutrition*

*Nutrition for infants, pregnant women, and nursing mothers.* Promotion of mother- and baby-friendly community initiatives, including exclusive breastfeeding for the first 6 months and complementary feeding with continuing breastfeeding for infants ages 7–24 months. HIV-positive mothers should use replacement feeding when it is acceptable, feasible, affordable, sustainable, and safe. Provision of sufficient calories, protein, and micronutrients to pregnant women and nursing mothers, supported by nutrition extension workers and using locally produced food to the extent possible.

*Nutrition for undernourished children under five.* Complementary feeding, including fortified and blended foods with take-home rations supported by nutrition extension workers.

*Nutrition for school-going children.* Provision of balanced school meals with locally produced foods at the primary and secondary levels.

*Addressing hidden hunger.* Reduction of vitamin A and iron, zinc, and iodine deficiencies by increasing the production and consumption of micronutrient-rich foods, particularly local fruits, vegetables, and livestock products, iodized salt, and fortified foods from local products (such as India Mix); special attention to nutrition needs of the above groups and people living with HIV/AIDS; support to research on biofortification of food.

#### *Emergency food assistance\**

*Early warning systems.* Strengthening of early warning systems to cope with natural disasters.

*Emergency response.* Direct food aid to areas where droughts, floods, earthquakes, and civil wars threaten the acutely hungry with starvation.

*Social safety nets.* Investments in social safety net solutions such as food for work, cash for work, community grain banks, and environmental rehabilitation to mitigate shocks and reduce longer term

**Domestic water supply, sanitation, and water management infrastructure**

*Domestic water supply*

*Water supply infrastructure.* Provision and operation of infrastructure for water supply (such as standpipes, boreholes, dug wells, or rainwater harvesting), including water treatment as necessary.

*Water management*

*Water storage and other infrastructure for water management.\** Construction and operation of water storage infrastructure for drinking water supply, agricultural water use, and hydropower; extension of large-scale water harvesting.

*Integrated water resources management.\** Protection and allocation of water resources to agricultural, domestic, and industrial uses, as well as environmental needs based on comprehensive assessment of renewable and nonrenewable water resources.

*Hydrological monitoring.\** Operation and extension of hydrological monitoring systems.

*Sanitation*

*Sanitation infrastructure.* Construction and operation of sanitation facilities (simple pit latrines, ventilated improved pit latrines, septic tanks, flush toilets, and the like), including emptying of pits and safe disposal of sullage.

*Building awareness.* Targeted awareness-building measures accompanying the provision of new sanitation infrastructure to ensure the informed choice of technology options and proper use by all household members.

*Hygiene education*

Awareness campaigns (in primary schools, through community-based organizations, media, and so on) to promote hygienic behavior, with particular focus on hand washing and personal hygiene, as well as appropriate use of sanitation facilities and safe water storage.

**Rural transport**

*Transport infrastructure*

*District roads.* Upgrading and construction of paved secondary or district roads.

*Feeder and community roads.* Upgrading and construction of small paved roads connecting villages and farmers to the nearest district road.

*Footpaths.\** Extension and improvement of footpaths connecting individual rural farmers to feeder roads.

*Road maintenance.* Institutional structure and funding arrangements for adequate road maintenance (such as dedicated road funds).

*Transport services*

*Vehicle supply.\** Investments in supply and distribution systems for bicycles and motorized vehicles.

*Other interventions.\** Deregulation of transport market to increase competition. Support to small-scale

## Rural energy services

### *Thermal energy*

*Improved cooking stoves.* Distribution and maintenance or replacement of appropriate cooking stoves (ceramic stoves, liquid petroleum gas [LPG] stoves, ethanol stoves, charcoal stoves, and the like).

*Modern cooking fuels.* Strengthening of distribution and production systems for modern fuels (such as LPG, ethanol, dimethylsulfoxide, and kerosene), including safe containers.

### *Electricity*

*Off-grid electric power systems and batteries.* Provision of diesel generators, hybrid systems, or solar home systems together with necessary wiring to schools, hospital, clinics and health centers, and other community facilities. Provision of batteries and charging stations to remote rural communities.

*Electric power generation capacity.* Extension, upgrading, and maintenance of generation capacity (thermal energy plants, hydropower, or geothermal, as appropriate) to supply electricity grids.

*Electric power grid.* Extension of grid through high-voltage lines, medium- to low-voltage lines (including end-user connections), and other related infrastructure (such as transformer stations).

*Provision of basic machinery for food processing and other motive power needs.*

## Intervention area 2: investments in urban development and slum upgrading

Investments in urban development and slum upgrading include interventions in urban hunger, slum upgrading, urban transport, energy services, domestic water supply and sanitation, environmental management, and industrial development.

### Slum upgrading and urban planning

#### *Slum upgrading*

*Housing.* Incremental improvements to and construction of housing.

*Infrastructure for slum upgrading.* Upgrading and extension of roads and sidewalks, street lighting, storm drainage, and communications infrastructure within slums. (See below for domestic water supply, sanitation, and energy services.)

#### *Tenure*

*Security of tenure.\** Improving the security of tenure through legislation against forced eviction and through legitimized occupancy or formal title.

*Enforcement of improved land tenure legislation.\** Legal protection and enforcement of slum dwellers' rights.

#### *City-wide urban planning and*

*Urban infrastructure.* Planning of urban infrastructure (roads, footpaths, sidewalks, street lighting, storm water drainage, bus lanes, and other transport infrastructure). Providing health and educational



*Basic services.* Provision of basic services (such as refuse collection and solid waste disposal, policing and security, and fire protection).

**Urban transport**

*Transport infrastructure* *Infrastructure for mass transport.* For example, bus lanes.

*Urban roads.* Upgrading, construction, and maintenance of urban roads.

*Footpaths.\** Extension and improvement of footpaths within cities.

*Transport services* *Mass transport system.* Operation of bus, rail, and other mass transport systems.

*Small-scale transport providers.* Reduce barriers to market entry for small-scale transport providers and ensure uniform safety and regulatory standards.

**Urban energy services**

*Thermal energy systems* *Improved cooking stoves.* Distribution and maintenance or replacement of appropriate cooking stoves (ceramic stoves, LPG stoves, ethanol stoves, charcoal stoves, and the like).

*Modern cooking fuels.* Strengthening of distribution and production systems for modern fuels (such as LPG, ethanol, dimethylsulfoxide, and kerosene), including safe containers.

*Electricity* *Electric power generation capacity.* Extension, upgrading, and maintenance of electric power generation capacity (thermal energy plants, hydropower, or geothermal, as appropriate) to supply electric power grids.

*Electric power grid.* Extension of electricity grid through high-voltage lines, medium- to low-voltage lines (including end-user connections), and other related infrastructure (such as transformer stations).

**Domestic water supply and sanitation**

*Water supply infrastructure.* Provision and operation of infrastructure for water supply (such as household connections, standpipes, or boreholes), including water treatment as necessary.

*Trunk water infrastructure.* Maintenance and extension of trunk infrastructure for urban water supply, including treatment facilities and reservoirs.

*Other water management* *Storm drainage and flood control measures.* Extension and rehabilitation of storm drainage infrastructure, including conversion of sanitation infrastructure to serve as storm drainage.

#### *Sanitation*

*Sanitation infrastructure.* Construction and operation of sanitation facilities (simple pit latrines, ventilated improved pit latrines, septic tanks, flush toilets, and the like) and sewers, including emptying of pits and safe disposal of sullage.

*Sewage treatment.* Construction and operation of simple sewage and other wastewater treatment facilities (such as waste stabilization ponds or other forms of primary treatment) where needed in dense urban settlements or because of specific environmental concerns (such as eutrophication of freshwater lakes).

*Awareness building.* Targeted awareness-building measures accompanying the provision of new sanitation infrastructure to ensure the choice of the adequate technology option and proper use by all household members.

#### *Hygiene*

*Hygiene education.* Awareness campaigns (in primary schools, through community-based organizations, media, and so on) to promote hygienic behavior, with particular focus on hand washing and personal hygiene, as well as appropriate use of sanitation facilities and safe water storage.

### **Urban environmental management**

#### *Pollution control*

*Air pollution control.\** Adoption and enforcement of regulatory standards and investments in pollution abatement technologies.

*Water pollution control.\** For example, industrial wastewater treatment to complement sewage treatment, as necessary.

*Solid waste and soil pollution control.\** Construction and maintenance of technically sound landfills.

### **Urban industrial development**

*Private sector*  
*Industrial promotion.\** Supportive policies, including tax concessions and grants, as well as provision of additional infrastructure for development of manufacturing and service industries.

*Export processing zones.\** Provision of export processing zones, industrial parks, and other designated areas for private sector development.

### **Urban hunger**

#### *Food production*

*Urban agriculture.* Promote urban and periurban food production, particularly of root and tuber crops, bananas, fruit trees, vegetables, and small-scale livestock.

#### *Nutrition*

*Nutrition for infants, pregnant women, and nursing mothers.* Promotion of mother- and baby-friendly community initiatives, including exclusive breastfeeding for the first 6 months and complementary feeding with continuing breastfeeding for infants ages 7 to 24 months. Provision of sufficient calories,

workers. Universal access to reproductive and sexual health services is also needed to ensure that women are able to delay first pregnancy and properly space births to avoid cumulative nutritional deficits and reduce the risk of complications for themselves and their children.

*Nutrition for undernourished children under five years.* Complementary feeding, including fortified and blended foods, with take-home rations supported by nutrition extension workers.

*Nutrition for school-going children.* Provision of balanced school meals with locally produced foods at the primary and secondary level.

*Addressing hidden hunger.* Reduction of vitamin A and iron, zinc, and iodine deficiencies by increasing the production and consumption of micronutrient-rich foods, particularly local fruits, vegetables, and livestock products, and iodized salt and fortified foods from local products (such as India Mix); special attention to nutrition needs of the above groups and people living with HIV/AIDS; support to research on biofortification of food.

*Emergency food assistance* *Early warning systems.* Strengthening of early warning systems to cope with natural disasters.

*Emergency response.* Direct food aid for areas where droughts, floods, earthquakes, and civil wars threaten the acutely hungry with starvation.

*Social safety nets.* Investments in social safety nets such as food for work, cash for work, community grain banks, and environmental rehabilitation to mitigate shocks and reduce longer term food security risks.

### **Intervention area 3: investments in the health system**

Investments in the health system include interventions in child and maternal health; prevention, care, and treatment of HIV/AIDS, TB, and malaria; access to essential medicines; measures to strengthen health systems management and health services delivery; and sexual and reproductive health.

*Child health* *Neonatal integrated package.* Clean delivery, newborn resuscitation, prevention of hypothermia, kangaroo care (skin-to-skin contact), antibiotics for infection, tetanus toxoid, breastfeeding education (including education on replacement feeding for HIV-positive mothers), and hygiene education.

*Integrated management of childhood illness plus immunization.* Integrated approach to reduce child mortality, illness, and disability, which includes both preventive and curative elements to address leading causes of child mortality such as oral rehydration therapy and antibiotics for diarrheal disease, antibiotics for acute respiratory infection, care for measles, antimalarials for malaria, and nutritional supplements for malnutrition plus immunization.

### *Maternal health*

*Emergency obstetric care.* Rapidly accessible treatment for delivery complications such as eclampsia, hemorrhage, obstructed labor, and sepsis. Emergency obstetric care requires functioning referral systems and well equipped and staffed district hospitals.

*Skilled attendance, clean delivery, and postpartum care.* Presence of trained and registered midwives, nurses, nurse-midwives, or doctors at birth with ability to diagnose and refer emergent complications as well as postpartum care (including counseling on nutrition, family planning, and parenthood skills\*).

*Antenatal care.* Routine care during pregnancy, including preventive and curative interventions such as blood pressure and weight monitoring; treatment of infections, nutrition and smoking counseling; intermittent preventive treatment for malaria; and antiretrovirals for HIV-positive women to prevent mother-to-child transmission of HIV.

*Safe abortion services.* Access to postabortion care, access to abortion counseling and, where permitted by law, safe abortion services.

### *HIV/AIDS prevention*

*Improved linkages.* Effective joint programming between reproductive health and HIV/AIDS programs.\*

*Behavior change programs.* Programs to encourage safer sexual behavior, including condom social marketing, peer-based education, mass media campaigns, work-based programs, and school-based HIV education.

*Control of sexually transmitted diseases.* Routine screening and effective treatment of sexually transmitted diseases (such as syphilis, gonorrhea, and chlamydia).

*Voluntary counseling and testing.* Pre- and post-test counseling and HIV testing.

*Harm reduction for injecting drug users.* Actions to prevent transmission of HIV and other infections that occur through sharing of nonsterile injection equipment and drug preparations; specific programs include provision of sterile syringes and needles and drug substitution treatment.

*Prevention of mother-to-child transmission.* Prevention of transmission of HIV from infected women to their infants during pregnancy, labor, and delivery, as well as during breastfeeding (that is, replacement feeding when it is acceptable, feasible, affordable, sustainable, and safe); includes short-term antiretroviral prophylactic treatment; infant feeding, counseling; and support; and the use of safer infant feeding methods.

*Blood safety interventions.* Measures to reduce the risk of receiving infected blood through a transfusion, including HIV antibody screening, protocols to avoid unnecessary blood transfusions, and policies to

*HIV/AIDS care and treatment*     *Antiretroviral therapy.* Combination drug therapy to treat AIDS.

*Treatment of opportunistic infections.* Treatment of any infection caused by a microorganism that would not normally cause disease in a healthy individual.

*Orphan support.* Provision of support to orphans to minimize the impact of AIDS on their lives; includes school fee support, community support, and support to extended families.

*TB*     *DOTS.* Internationally recommended TB control strategy combining five elements: political commitment, microscopy services, drug supplies, surveillance and monitoring systems, and use of highly efficacious regimes with direct observation of treatment.

*Adaptation of treatment to high-prevalence TB/HIV and multidrug-resistant TB settings.* Integration with HIV diagnosis and treatment for high HIV-prevalence settings; use of effective diagnostics and treatment protocols for areas with multidrug-resistant TB.

*Malaria*     *Insecticide-treated bednets.* Provision of antimosquito bednets that are treated with insecticide, providing a physical and chemical barrier to mosquitoes, shortening the mosquito's life span, and thus reducing the incidence of malaria.

*Indoor residual spraying.\** Periodic spraying of indoor surfaces with insecticide to reduce malaria transmission.

*Artemisinin combination treatment.* Combination of drugs used to treat first-line-drug-resistant falciparum malaria, which is now widespread in Africa.

*Larviciding, drainage, and house improvement.\** Measures designed to reduce mosquito breeding. Focal use of these measures is especially important in urban areas.

*Access to essential medicines*     *Interventions to ensure availability, affordability, and appropriate use.* Incentives to direct research and development processes toward appropriate medicines for developing countries; establishment of national essential medicines lists (including preventive, curative, and reproductive health commodities, equipment, and supplies); ensuring reliable procurement and distribution systems; prequalifying quality suppliers and procurement and distribution facilities; monitoring systems to assure drug quality; elimination of user fees for essential medicines; and programs to improve the way drugs are prescribed, dispensed, and used, including public media campaigns and education of providers.

*Health systems*     *Multiple interventions to strengthen health system.* Human resource training and salary enhancement, improving management capacity, enhancing monitoring and evaluation, strengthening quality control, strengthening medical information systems, increasing capacity for research and development,

*Sexual and reproductive health (elements of integrated programming not covered under maternal health, child health, HIV/AIDS programs)*      *Counseling on contraception and birth spacing.* Information and education on benefits and methods of family planning and birth spacing; appropriate follow-up on method satisfaction, consistent and correct use of method, and options for appropriate method switching.

*Universal access to contraception.* Program to ensure universal access to family planning choices, including effective modern contraceptive methods, and to guarantee reliably available and affordable supplies and choice among methods.

*Age-appropriate sexuality education and services (especially for adolescents).\** School and community-based education programs, mass media education programs, youth-friendly information and service delivery, beneficiary-driven programming to meet the information and service needs of diverse adolescent groups (including married adolescents), and programs to educate parents to improve adolescent reproductive health.

*Prevention and treatment of sexually transmitted infections.* Programs to detect and treat sexually transmitted infections (such as syphilis, gonorrhea, and chlamydia) and other reproductive tract infections that can increase the risk of HIV/AIDS and infertility and affect the choice of appropriate contraceptive methods.

*Outreach to men to increase participation and support in reproductive health.\** Counseling and information services for men to address their reproductive health needs, support the decisions of their partners, and change gender and relationship norms to ensure greater gender equality; prevent gender violence and harmful traditional practices, and promote collaborative decisionmaking; information and services for reproductive health in the army and police forces, including efforts to combat gender violence.

## **Intervention area 4: investments in education at all levels**

Investments in education at all levels include interventions in primary and postprimary education and adult literacy.

*Primary and postprimary education*

*Demand-side incentives.* Elimination or reduction of school fees, conditional cash transfers to parents, school feeding (and take-home food rations where needed), school health programs such as deworming and iron supplementation, targeted subsidies to girls, and vulnerable populations such as ethnic groups or HIV/AIDS orphans, provision of school material such as textbooks and uniforms, and so on.

*Local control and management.\** Systems to involve parents in school management: parent committees, school-based management, financing, auditing, and expenditure management systems that are consistent with more local control.

*Information/assessment.\** Provision of transparent information regarding resources, greater access to



*Improving and evaluating learning outcomes.\** Learning evaluation systems that assess acquisition of skills and knowledge, and learning outcomes.

*Special packages to make schools safe for girls.\** Training teachers and administrators in gender sensitivity, hiring female teachers, and investing in gender-sensitive infrastructure such as latrine facilities.

*Special packages for children with disabilities.\** Investments in infrastructure, special training for teachers, specific outreach and retention efforts, and separate performance assessments.

*Special packages for education in conflict and post-conflict situations.\** Community participation to increase coverage of children affected by conflict and efforts involving private institutions and nongovernmental organizations to create a participatory and culturally and environmentally sensitive learning environment through training of teachers and relevant learning material.

*Adult literacy*  
*Adult literacy for women.* Providing informal educational opportunities to uneducated and/or illiterate mothers of young children, particularly in settings where there are pockets of undereducated women, such as ethnic minority/indigenous communities, and in areas where parental literacy is a constraint on children's enrollment and completion.

*Other core interventions*  
*for primary and postprimary schooling*  
*Infrastructure.* Provision of schools, including classrooms, furniture, transportation, and other facilities such as libraries, laboratories, and sports facilities, where needed for primary and postprimary schooling.  
*Teachers.* Recruitment of teachers, with provision of incentives (such as adequate salaries and housing in rural areas, where applicable) and adequate pre-service and in-service training.

*Curriculum reform.* Implementation of curriculum reform, where necessary, to improve education content, quality, and relevance, with a focus on vocational and informal training as necessary to prepare students for transition to work and to adulthood.

*Higher education*  
Extension and maintenance of higher education system, with a particular focus on science and engineering education.

## **Intervention area 5: investments in gender equality**

Investments in gender equality include interventions for sexual and reproductive health, access to property rights and work, security, participation and institutional reform, and data collection and monitoring.

*Sexual and reproductive health*  
*Universal access to sexual and reproductive health information and services and protection of reproductive rights.* (Service packages described under health interventions above.) Legislation\* and awareness



sexual and reproductive health information and services; to discourage early marriage (at ages posing health risks), female genital mutilation, and other traditional harmful practices; and to expand access to safe abortions (where permitted by law) and review the legal status of abortion in order to improve public health while respecting national sovereignty, cultural values, and diversity.\*

*Access to property rights and work*

*Equal access to and treatment at work.* Provision and enforcement of equal opportunity legislation\* and legislation promoting gender-sensitive policies, such as provision of maternity and dependent care leave and training,\* and support programs for women entrepreneurs and young girls training to transition to work (including care centers for young children to ensure early childhood development).

*Equal access to property rights.\** Legislation and administrative support to provide and protect women's equal rights to property and other inherited and acquired assets.

*Security*

*Security for girls and women from violence.* Legislation and administrative actions to protect women against violence,\* promotion of awareness of women's right to seek redress, protection from perpetrators of violence (through access to shelters, services, and so on), and mechanisms to dispense justice to perpetrators.

*Participation and institutional reform*

*Political representation.* Mechanisms\* (such as quotas and reservations) to allow for adequate representation at all levels of government, along with adequate training.

*Involvement of women's groups at the community level.\** Recognition of and support to women's groups organized at the community level to encourage women to be partners in the design and delivery of public services.

*National women's machineries.* Legislative and financial support to national women's machineries (defined by the United Nations as "a single body or complex organized system of bodies, often under different authorities, but recognized by the government as the institution dealing with the promotion of the status of women").

*Data collection and monitoring\**

*Gender-disaggregated data.* Collection of gender-disaggregated statistics on health, education outcomes, access to assets and infrastructure, conditions of work and employment, political representation, and gender-specific violence.

## **Intervention area 6: investments in environmental sustainability**

Investments in environmental sustainability include interventions in improved environmental management, integration of environmental sustainability into sector strategies, strengthening regulatory and institutional mechanisms, and

**Environmental management**

*Natural resource  
management*

*Soil management and prevention of desertification.\** Implementation of soil erosion control (by wind and water) by planting windbreaks and cover crops; improvements in soil fertility with agroforestry systems, cover crops, and conservation of ground and surface water.

*Forest management.\** Implementation of sustainable forest management techniques, forest plantations in appropriate areas to satisfy demand for forestry products, and tree seedlings and other measures to support afforestation.

*Watershed management.\** Promotion of reforestation and afforestation to protect selected water catchment areas.

*Management of coastal ecosystems and fisheries.\** Elimination of destructive technologies (for example, dynamite and cyanide, bottom trawling); design and implementation of fisheries rebuilding plans to restore depleted fish populations to target levels (biomass at maximum sustainable yield); implementation of a representative network of fully protected marine and coastal areas to restore fisheries.

*Management of freshwater resources and ecosystems.\** Institution of Integrated Water Resources Management plans; promotion of reforestation to protect selected catchment areas; increasing efficiency of cropping systems; and monitoring of wells and groundwater-dependent systems.

**Integration of environmental sustainability into sector strategies**

*Technical support*

*Advisory mechanisms.* Strengthening institutions for environmental management (such as ministries and environmental protection agencies) to provide technical support to the development of sector strategies.

*Impact assessments*

*Environmental impact assessments.\** Carry out strategic environmental impact assessments for large-scale infrastructure projects and other development strategies that are likely to have a major impact on the environment.

**Regulatory and institutional mechanisms**

*Property rights*

*Access to tenure and rights.\** Local ownership of natural resources, including common property and provision of access rights.

*Regulation of pollution*

*Pollution control.\** Development and implementation of pollution control standards.

*Market-based  
strategies*

*Reformation of tax laws.\** Taxation of environmental “bads” (such as pollution and degradation), and appropriate carbon tax systems.

*Transformation of market incentives.\** Revision of subsidies in forestry and fisheries that cause overexploitation of these resources, design of agricultural subsidy programs to prevent overuse, development of an internationally credible system of certification of raw natural resource materials.

### **Monitoring and enforcement**

*Environmental monitoring systems.\** Better dissemination and use of existing environmental monitoring and assessments at national and local levels; provision of funds, technical support, and tools for countries to undertake monitoring, data collection, and harmonization based on established standards (based on core set of indicators).

*Enforcement of environmental regulation.\** Strengthening systems for monitoring environmental pollution to help enforce regulation for pollution control.

## **Intervention area 7: investments in science, technology, and innovation**

Investments in science, technology, and innovation include interventions in science and technology institutions and information and communication technologies.

*Science and technology institutions*      *Science and technology advice.\** Creation of independent body charged with providing scientific advice and technology forecasting to policymakers.

*Science and technology research.\** Extension and maintenance of centers of excellence for scientific research, including the financing of research at universities.

*Science parks and business incubators.\** Establishment of science parks and incubators for technology-based companies.

*Information and communication technologies*      *Telecommunications infrastructure.\** Provision of telecommunications infrastructure, including international and trunk fiber infrastructure; provision of connectivity to hospitals and schools.

## MDG interventions by target

### Income poverty (Goal 1, target 1)

*Agriculture.* Increasing agricultural productivity directly raises the incomes of the rural poor and generates rural jobs.

*Nutrition.* Better nutrition contributes to human capital accumulation and improved labor productivity.

*Education.* Education increases human capital, which contributes to economic growth. Education is linked to lower fertility rates, which are in turn linked to increases in economic growth per capita.

*Gender equality.* Awareness of and access to reproductive health rights and services enable and empower women to plan their families, leading to lower fertility rates and reduced poverty. Empowerment through access to work, property rights, political representation, and safety from violence leads to increased participation of women in economic activity.

*Health.* Improved health has pervasive direct and indirect effects on raising both the level and the growth rate of income.

*Environment.* Many poor people depend on natural resources for their livelihoods. Improving natural resource management can sustain or even raise their incomes.

*Water and sanitation.* Improved water supply for productive activities can raise economic growth through agriculture and the urban manufacturing

*Slum upgrading and urban planning.* Providing security of tenure can improve labor market participation and access to credit markets. Urban infrastructure, including transport systems, is necessary for establishing manufacturing and service industries.

*Science and technology.* Science and technology institutions improve technological learning in society and improve the adoption of technology by the private sector. Higher education can open new employment opportunities.

*Energy.* Access to electricity, motive power, and improved thermal energy systems is necessary for manufacturing, service, or cottage industries.

*Transport.* Roads, railroads, and ports lower transport costs and thereby increase the real incomes of the poor. In urban areas improved transport infrastructure supports manufacturing and service industries, contributing to employment.

### Hunger (Goal 1, target 2)

*Agriculture.* Increasing agricultural productivity through investments in soil health, water management, extension services, and research increases food availability.

*Rural incomes and access to markets.* Improved access to credit, storage facilities, processing, and value-added technologies can help raise incomes, together with access to markets, farmer cooperatives/associations, and physical market spaces.

*Nutrition.* Nutrition interventions are needed

micronutrient intake. Direct food assistance in food-scarce areas alleviates short-term hunger.

*Education.* Education leads to more productive farming and better management of nutritional needs.

*Gender equality.* Land rights allow women to increase agricultural production. Increased access to work and higher incomes enable women to purchase adequate food for themselves and their families. Equal access to productive inputs increases plot yields.

*Health.* Reducing parasitic and infectious disease burden improves nutrition levels. Birth spacing protects maternal and child nutrition and health.

*Environment.* Improved water resource management and protection of water catchment areas can raise crop yields. Biodiversity protection sustains pollination and seed dispersal mechanisms necessary for agricultural production.

*Water and sanitation.* Safe drinking water reduces the incidence of diarrheal diseases, which contribute to malnourishment. Drinking water supplied through wells and boreholes can help irrigate fields during droughts. Access to sanitation reduces the incidence of diarrheal disease and thereby increases nutrient uptake. Integrated water resources management sustains adequate water supply for agriculture. Water storage and water management infrastructure improve water management for agriculture.

*Slum upgrading and urban planning.* Slum upgrading and accompanying interventions help raise incomes and reduce urban hunger. Improved transport infrastructure lowers the cost of food

*Science and technology.* Increased agricultural research is critical for improving seed varieties, cropping systems, pest control, and water management to increase agricultural productivity, thus reducing hunger. Increased access to higher education can help increase the number of agricultural extension workers. Information and communications technology improves farmers' market information, raising agricultural production.

*Energy.* Improved access to electricity and liquid fuels can power diesel pumps for irrigation, facilitate agricultural mechanization, and power agroprocessing machinery, thus increasing agricultural output and reducing hunger. Improved energy services lower transportation and marketing costs, which reduces food prices. Access to improved cooking fuels is necessary to ensure safe cooking of food.

*Transport.* Footpaths, roads, and improved transport services lower the cost of agricultural inputs, increase farmgate prices, and facilitate marketing, which can increase agricultural production. Improved transport infrastructure reduces postharvest losses through accelerated transport of products to markets.

## **Primary education (Goal 2, target 3)**

*Education interventions.* Enrollment and retention of children in primary and post-primary school can be increased by providing demand-side incentives to retain children in school, management systems to increase parental involvement and school-based management, increased transparency and information, evaluation of learning outcomes, special packages

those in conflict and post-conflict situations, and adult literacy for women in particular. These interventions help to improve the efficacy of other core interventions such as building schools, providing trained teachers, and developing appropriate curricula.

*Agriculture.* Agricultural interventions to improve soils, seeds, and water management raise rural incomes and reduce the time young children spend in the field, freeing them to attend school.

*Nutrition.* Nutrition interventions for infants improve cognitive development and improve learning outcomes in the future.

*Gender equality.* Maternal education contributes strongly to higher primary enrollment.

*Health.* Improved health enhances educational outcomes by improving cognitive abilities and attendance rates. AIDS prevention and treatment reduce the disease's impact on teacher attendance and attrition. AIDS prevention and treatment reduce the number of orphans, who are less likely to complete primary education. Reproductive health services reduce the withdrawal of girls from school related to sibling care burdens caused by unplanned pregnancies or due to adolescent pregnancy.

*Environment.* Improved natural resource management can free up children's time and increase school attendance.

*Water and sanitation.* Improved access to water frees up children's time, thus allowing them to attend school. Improved health through sanitation and hygiene reduces school absenteeism. Installing girls' toilets in schools can increase girls'

*Slum upgrading and urban planning.* Security of land tenure and a fixed address are often necessary for children to be allowed to attend school.

*Science and technology.* Higher education is essential to training secondary school teachers and provides additional incentives to complete primary and secondary school. Information and communications infrastructure can improve the quality of education.

*Energy.* Access to electric power and improved cooking fuels lowers time spent by children (especially girls) collecting fuelwood, thus facilitating school attendance. Improved access to liquid fuels is necessary to render mechanized school transport more affordable. Electrification permits children to read and study for longer hours, thus improving school outcomes.

*Transport.* Improved transport infrastructure and services increase incentives for teachers to work in rural areas, reducing the time it takes for children to reach school and allowing them to travel farther, raising enrollment rates, reducing the time required for households to fetch fuel and water and to carry out other tasks, and lowering the opportunity cost of children attending school.

## **Gender equality (Goal 3, target 4)**

*Gender interventions (not specified elsewhere).* Reduce violence against women, improve their property and other rights, ensure full access to reproductive health services, including contraception, and improve women's participation



*Agriculture.* Improved soils, seeds, and water provision can reduce the time girls spend in the field, freeing them to attend school. Providing fuelwood on farms through agroforestry trees decreases women's labor in search of firewood. Providing small-scale water management such as water harvesting decreases women and girls' transport burden to fetch water. Increased agricultural production increases the incomes of women farmers.

*Nutrition.* Nutrition interventions for girls (infants and children) lead to better health and education outcomes.

*Education.* Education contributes to increased employment opportunities, improved decisionmaking, and empowerment of women more broadly.

*Health.* Family planning services facilitate employment and social participation opportunities for women, strengthen partner relationships, and provide a greater sense of well-being and agency. Access to emergency obstetric care in the event of pregnancy and delivery complications saves women's lives.

*Environment.* Women benefit disproportionately from improved management of natural resources, including through time savings and reduced transport burden.

*Water and sanitation.* Improved access to water generates time savings for women and girls. Improved access to water reduces the need to carry heavy loads over long distances, thus improving women's health. Increasing access to toilets reduces women's exposure to harassment and improves

*Slum upgrading and urban planning.* Women benefit disproportionately from slum upgrading, since it reduces their transport burden and time-poverty, improves their health, and provides them with additional income-generating opportunities.

*Energy.* Improved access to electricity and fuels reduces the time-poverty of women and lowers their daily transport burden. Improved access to energy creates additional employment opportunities for women.

*Transport.* Improved transport infrastructure and services reduce women's time-poverty and transport burden. Roads improve communication and lower transaction costs, thus increasing employment opportunities for women.

## Child mortality (Goal 4, target 5)

*Health interventions.* Provide the neonatal integrated package of interventions, immunization, integrated management of childhood illness, and the range of preventive approaches (such as mass distribution of insecticide-treated bednets). Family planning can delay first births and reduce very short and very long birth intervals, thereby improving child health outcomes. Strengthening health systems will also be critical to achieving this Goal.

*Agriculture.* Increased rural incomes and food availability lead to improved health outcomes.

*Nutrition.* Nutrition interventions for pregnant women lead to higher birthweight, an important determinant of child survival.



after six months (HIV-positive mothers should use replacement feeding when it is acceptable, feasible, affordable, sustainable, and safe), and micronutrient supplementation reduce child mortality.

*Education.* Post-primary education increases the age at marriage, lowers fertility rates, and increases care seeking for child illnesses. Adult literacy programs increase awareness of the causes and prevention of child mortality.

*Gender equality.* Women's empowerment leads in multiple ways to greater awareness of child health issues.

*Environment.* Reducing pollution of water and air can lower child morbidity and mortality.

*Water and sanitation.* Access to clean water, sanitation, and improved hygiene reduce the incidence of waterborne disease.

*Slum upgrading and urban planning.* Slum upgrading, improved urban infrastructure, and access to basic services (including solid waste disposal) can reduce exposure to pollutants and thereby reduce child mortality rates. Road curbing and street lighting can reduce traffic deaths.

*Science and technology.* Information and communications technology improves diffusion of hygiene education and thereby lowers child mortality. Access to higher education increases the supply of health workers.

*Energy.* Reducing indoor air pollution through improved cooking fuels and stoves decreases

allows households to boil water, thus reducing incidence of waterborne diseases.

*Transport.* Improved transport infrastructure increases access to healthcare clinics and services and reduces costs for healthcare workers to serve rural areas.

## **Maternal mortality (Goal 5, target 6)**

*Health interventions.* Ensure access to emergency obstetric care, skilled birth attendance and clean delivery, antenatal care and postpartum counseling, as well as safe abortion (where permitted by law). Access to family planning can reduce the number of unwanted and ill-timed pregnancies, reducing the lifetime exposure to the risk of maternal mortality and preventing recourse to abortion. Strengthening health systems will be critical to achieving this Goal.

*Agriculture.* Increased rural incomes and food intake lead to improved health outcomes.

*Nutrition.* Nutrition interventions, such as adequate caloric intake and iron supplementation for women of reproductive age, reduce risk during pregnancy and childbirth.

*Education.* Postprimary education increases the age at marriage, contraceptive use, and access to prenatal care and safe delivery, all of which reduce maternal mortality. Adult literacy programs increase awareness of the causes and prevention of maternal mortality.

*Gender equality.* Women's empowerment leads to greater effective demand for family planning

*Water and sanitation.* Running water and sanitation facilities are essential for provision of prenatal care and emergency obstetric care. Access to sanitation and hygienic behavior improve women's health.

*Slum upgrading and urban planning.* Slum upgrading and security of land tenure improve women's access to health systems and emergency obstetric care.

*Science and technology.* Information and communications technology is critical for providing adequate access to emergency obstetric care. Access to higher education increases the supply of health workers.

*Energy.* Improved access to energy services improves communication and transport, which are critical for emergency obstetric care. Modern energy services reduce costs for healthcare workers serving in rural areas.

*Transport.* Feeder roads and emergency transport are critical for providing timely access to emergency obstetric care. Improved transport infrastructure reduces the cost for healthcare workers serving in rural areas.

## **HIV/AIDS (Goal 6, target 7)**

*Health interventions.* Provide comprehensive HIV/AIDS prevention programs, orphan support, voluntary counseling and testing, harm reduction for drug users, prevention of mother-to-child transmission, antiretroviral treatment, and treatment of opportunistic infections. Linking reproductive health and HIV/AIDS program efforts can increase effectiveness.

Strengthening health systems will be critical to achieving this Goal.

*Agriculture.* Increased agricultural incomes improve access to prevention and treatment.

*Nutrition.* Adequate nutrition can improve survival and quality of life for people with HIV. Nutritional supplementation programs for people with HIV improve antiretroviral adherence.

*Education.* With education, people are less likely to contract HIV and more likely to use health services effectively.

*Gender equality.* Women's empowerment leads to greater effective demand for HIV/AIDS prevention and treatment, including the ability to negotiate safe sexual practices.

*Water and sanitation.* Improving access to clean water and sanitation improves the nutritional status of people with HIV.

*Slum upgrading and urban planning.* Slum upgrading and security of land tenure improve access to HIV/AIDS treatment and prevention.

*Science and technology.* Scientific research can improve diagnosis and treatment of HIV. Information and communications technology is critical for media-based HIV prevention campaigns. Access to higher education increases the supply of health workers.

*Energy.* Electricity and modern energy services support functioning health clinics and hospitals. Modern energy services increase incentives for

*Transport.* Improved transport infrastructure and services facilitate treatment and prevention of HIV/AIDS. Improved transport infrastructure reduces costs for health workers serving in rural areas.

## **Malaria and other major diseases (Goal 6, target 8)**

*Health interventions.* For malaria, comprehensive use of insecticide-treated bednets, indoor residual spraying where appropriate, effective malaria treatment (using artemisinin combination therapies, where indicated), epidemic control measures, and promotion of new diagnostics, drugs, and vaccines. Strengthening health systems will be critical to achieving this Goal.

For TB, expansion of DOTS, DOTS-plus for multidrug-resistant TB, adaptation of TB treatment in high HIV prevalence settings, and promotion of new diagnostics, drugs, and vaccines. Strengthening health systems will be critical to achieving this Goal.

*Agriculture.* An increase in agricultural incomes improves access to and information on ways of preventing and treating malaria and TB.

*Education.* Education and literacy programs increase awareness of ways to prevent and treat malaria and TB.

*Gender equality.* Women's empowerment leads to greater effective demand for insecticide-treated bednets and effective malaria and TB treatment.

*Environment.* In some instances environmental control can contribute to containing malaria and

*Water and sanitation.* Improved water management in urban areas can contribute to containing mosquito breeding sites and transmission.

*Slum upgrading and urban planning.* Improving housing and urban water management infrastructure can reduce the incidence of malaria and especially TB (which has a higher rate of transmission in overcrowded slum conditions). Slum upgrading improves access to appropriate malaria and TB treatment.

*Science and technology.* Research is necessary to develop new drugs and diagnostics for malaria and TB. Access to higher education increases the supply of health workers.

*Energy.* Electricity and modern energy services improve healthcare. Modern energy services reduce cost for healthcare workers serving in rural areas.

*Transport.* Improved transport infrastructure and services reduce the cost of distributing bednets and providing essential health services including malaria and TB treatment. Improved transport infrastructure increases incentives for healthcare workers to work in rural areas.

## **Access to essential medicines (Goal 8, target 17)**

*Health interventions.* Improve supply and distribution systems for essential medicines together with strengthening quality control, quality assurance, and programs to promote rational use. Strengthening health systems will be critical to achieving this Goal.

*Agriculture.* An increase in agricultural incomes

*Education.* Education and literacy programs increase access to and appropriate use of essential medicines.

thus mitigating population pressures on the environment.

*Gender equality.* Women's empowerment leads to greater effective demand for essential medicines of good quality, including reproductive health commodities and supplies.

*Water and sanitation.* Improved sanitation and sewage treatment can reduce environmental pollution. Integrated water resources management can maintain ecosystem functioning. Hydrological monitoring systems can help protect aquifers and freshwater ecosystems from excessive withdrawals.

*Science and technology.* Research can generate new essential medicines and increase the effectiveness of existing ones.

*Slum upgrading and urban planning.* Slum upgrading and improved urban water and waste management infrastructure reduce environmental pollution.

*Transport.* Improved transport infrastructure and services lower the cost of essential medicines and improves access.

## **Reverse loss of environmental resources (Goal 7, target 9)**

*Environmental interventions.* Improve management of natural resources through market mechanisms, strengthened regulation and enforcement, and investments in the management of critical ecosystems.

*Science and technology.* Research can improve natural resource management (including management of freshwater ecosystems and wetlands, and biodiversity conservation).

*Agriculture.* Investments in soil health replenish

*Energy.* Access to modern cooking fuels reduces demand for biomass, thus reducing pressure on marginal lands and forests. Improved energy services reduce indoor labor and outdoor air pollution as well as carbon emissions.

soils and prevent further land degradation. Labor-intensive agricultural production is an alternative to slash-and-burn and to the deforestation that results. Agroforestry and other organic incomes

## **Water and sanitation (Goal 7, target 10)**

increase agro-biodiversity and sequester carbon. Small-scale water management can restore water tables and reduce runoff. Food-for-work programs can help restore degraded ecosystems.

*Water and sanitation interventions.* Provide, operate, and maintain water and sanitation infrastructure and services in conjunction with behavior change programs to improve household hygiene.

*Gender equality.* Equal access to property rights allows women, as primary users, to manage natural resources in a sustainable manner.

*Agriculture.* Small-scale water management increases water availability for rural farmers.

*Health.* Access to family planning services

*Education.* Education and literacy programs improve hygiene and help ensure proper operation

*Gender equality.* Political representation allows women to ensure that access to water is a priority in local decisionmaking.

*Environment.* Improved management of wetlands, water catchment areas, and freshwater ecosystems is critical for ensuring access to drinking water.

Control of industrial pollution improves drinking water quality.

*Slum upgrading and urban planning.* Slum

upgrading reduces water pollution and improves drinking water quality. Improved urban infrastructure ensures the separation of sewage from drinking water supplies.

*Science and technology.* Research can help improve sanitation and water management techniques. Access to higher education increases the supply of trained workers to design and manage water supply and sewer infrastructure.

*Energy.* Electricity and improved access to modern fuels are necessary to power water supply infrastructure and water treatment systems.

*Transport.* Improved transport infrastructure and services facilitate the provision, operation, and maintenance of water supply and sanitation systems. Improved transport systems reduce the costs of providing hygiene education through community workers.

## **Improve the lives of slum dwellers (Goal 7, target 11)**

*Urban investments and slum-upgrading.* Scale up slum upgrading with the support of improved urban planning and investments in core urban

*Agriculture.* Investing in urban agriculture increases agricultural productivity and the incomes of slum dwellers.

*Nutrition.* Nutrition interventions improve the health outcomes of urban populations.

*Education.* Education and literacy programs improve the employment prospects of slum dwellers.

*Gender equality.* Equal access to property rights, political representation, and security for girls and women allows women living in slums to improve their lives and the lives of their families.

*Health.* Access to preventive and curative health services, including sexual and reproductive health information and services, reduces the burden of ill-health for slum dwellers.

*Environment.* Improving solid waste disposal and water treatment can improve health outcomes.

*Water and sanitation.* Improved access to water supply and sanitation services can reduce household expenditure on water. Sewage treatment can further improve health outcomes in urban areas. Storm water drainage systems are improved through sanitation infrastructure, thus minimizing the risk of flooding.

*Science and technology.* Higher education provides new employment opportunities for the urban poor. Information and communications technology reduces the cost of income-generating activities.

*Energy.* Improving access to electricity and

Access to electricity and modern fuels can lower household expenditure on energy services, thus raising incomes. Improved energy services lower the cost of urban transport.

*Transport.* Improved rural transport

infrastructure and services reduce the cost of food in urban areas, thus increasing disposable incomes of slum dwellers. Improved urban transport infrastructure is critical to enhancing income-generating opportunities as well as access to social services. Proper sidewalks and curbing are critical to reduce traffic deaths.

## **Information and communications technology (Goal 8, target 18)**

*Direct interventions.* Strengthen science advisory mechanisms, invest in higher education and research, promote private sector development, and improve access to communications technologies.

*Agriculture.* Increased agricultural incomes improve access to information and communications technology.

*Education.* Postprimary education prepares students for ability to provide, use, and manage information and communications technology.

*Energy.* Electricity is necessary to power information and communications technology applications and to operate research institutions.



## **Sample spreadsheet snapshot: maternal and reproductive health model**

The Maternal and Reproductive Health Model developed by the United Nations Population Fund and the UN Millennium Project calculates the cost of providing a package of 35 essential reproductive health interventions, ranging from family planning, antenatal, and delivery care to emergency obstetric care (EmOC), essential newborn care, and treatment of sexually transmitted infections (STIs). The model calculates the quantity and cost of drugs and supplies required to provide all these interventions.

Based on World Health Organization treatment guidelines and United Nations Children's Fund international drug prices (which can be changed to reflect local circumstances), the model requires the user to enter country-specific data such as population, current coverage rate of services, and incidence and prevalence of pregnancy- and delivery-related complications. The user also needs to enter the current contraceptive prevalence rate and method mix. The model then calculates cost per case, number of women and newborns requiring and receiving services, and total cost.

The model takes into account the effect an increase in family planning use will have on the size of the population that will require health services. A reduction in the number of births affects not only the number of women requiring pregnancy- and delivery-related care but also the number of children under five that will need access to a country's health system.

The reproductive health model is therefore linked to the similarly structured Integrated Management of Childhood Illness Child Health model. This model calculates the drug and supply costs of providing children under five with treatment for the five most common childhood diseases—acute respiratory infection, diarrhea, fever and malaria, measles, and malnutrition—that cause more than 80 percent of under-five mortality. Costs are calculated at the primary health care level as well as the hospital level.

The following are samples of the (partial) input screen of the reproductive health model and the main results page.



## 2. Coverage Rates

Coverage Rates	Currently	2015 Target	Source/Comments
% of women receiving antenatal care	45%	100%	Currently, 45% at least 3 visits
% of deliveries performed by a skilled attendant	25%	100%	Doctor or nurse
% of women receiving postpartum care	15%	100%	
% of women with access to EmOC	15%	100%	Assumed to be 60% of delivery coverage
% of women receiving treatment for STIs	45%	100%	
Contraceptive prevalence rate (modern methods)	13.4%	56%	

Source: PopFam 2003

## 3. Family Planning

Method mix among women using modern methods	Currently	2015	Source/Comments
In			
Pill	47.4%	47.4%	No change in method mix assumed
IUD	25.6%	25.6%	
Injection	9.8%	9.8%	
Norplant	0.8%	0.8%	
Condom	3.0%	3.0%	
Female Sterilization	12.8%	12.8%	
Male Sterilization	0.8%	0.8%	
Total	100.0%	100.0%	

Source: PopFam 2003

## 4. Maternal and Newborn Health

Incidence/Prevalence of Pregnancy and Delivery Complications	%	2015	Source/Comments
<b>Obstetric Complications</b>			
% of births requiring management of postpartum haemorrhage	5.5%	5.5%	WHO, Global Burden of Disease Data, 2000 EMRO D region
% of deliveries experiencing prolonged labor (>18 hours)	22%	22%	PopFam 2003
% of births requiring forceps or vacuum-assisted delivery	4%	4%	PopFam 2003
% of births requiring C-section	9%	9%	PopFam 2003
% of births requiring management of puerperal sepsis	12.0%	5.0%	WHO GBD Data, 2000, EMRO D region 7.8%, assumed 50% higher in Yemen, assumption
% of births requiring management of hypertensive disorder (eclampsia and pre-eclampsia)	7.3%	7.3%	PopFam 2003
% of pregnancies requiring management of incomplete abortion	3%	3%	PopFam 2003, supported by WHO data

# TOTAL COST SUMMARY

Scenario 2: Accelerated Scale-up (100% Coverage by 2010)

	Current Cost per Case	Total No. of Cases 2005-2015	%	Total Cost 2005-2015 (Excl. Inflation)	%	Total Cost 2005-2015 (Incl. Inflation)	%
<b>Family Planning</b>							
1 Pill	\$5.26	11,467,992	16.5%	\$73,566,941	14.1%	\$129,729,729	14.3%
2 IUD	\$1.52	2,194,639	3.2%	\$3,876,378	0.7%	\$6,729,387	0.7%
3 Injection	\$4.68	2,390,483	3.4%	\$13,729,489	2.6%	\$24,098,636	2.7%
4 Norplant	\$30.57	92,492	0.1%	\$3,394,772	0.6%	\$5,964,926	0.7%
5 Condom	\$5.96	728,126	1.0%	\$5,292,522	1.0%	\$9,332,961	1.0%
6 Female Sterilization	\$10.99	608,419	0.9%	\$6,917,271	1.3%	\$11,002,397	1.2%
7 Male Sterilization	\$3.74	35,789	0.1%	\$138,471	0.0%	\$220,248	0.0%
<b>TOTAL</b>		<b>17,517,941</b>	<b>25.2%</b>	<b>106,915,845</b>	<b>20.5%</b>	<b>187,078,285</b>	<b>20.6%</b>
<b>ANC and Delivery Care</b>							
1 Antenatal Care	\$6.25	9,009,979	13.0%	\$72,085,087	13.8%	\$124,695,485	13.7%
2 Malaria Prophylaxis within ANC	\$5.71	7,557,532	10.9%	\$44,439,590	8.5%	\$74,286,974	8.2%
3 Malaria Treatment within ANC	\$18.31	944,692	1.4%	\$17,824,409	3.4%	\$29,795,985	3.3%
4 Normal Delivery	\$7.18	7,339,060	10.6%	\$75,318,980	14.4%	\$132,168,873	14.5%
5 Postpartum Care	\$0.23	6,718,123	9.7%	\$2,331,184	0.4%	\$4,121,951	0.5%
<b>TOTAL</b>		<b>31,569,386</b>	<b>45.4%</b>	<b>211,999,250</b>	<b>40.6%</b>	<b>365,069,268</b>	<b>40.1%</b>
<b>Obstetric Complications</b>							
6 Prolonged Labor	\$10.80	1,477,987	2.1%	\$24,310,379	4.7%	\$42,985,100	4.7%
7 Delivery by Forceps/Vacuum Extraction	\$11.66	268,725	0.4%	\$4,774,669	0.9%	\$8,442,468	0.9%
8 Cesarean Section	\$30.14	604,631	0.9%	\$27,760,617	5.3%	\$49,085,788	5.4%
9 Maternal Hemorrhage	\$50.09	369,497	0.5%	\$28,197,088	5.4%	\$49,857,496	5.5%
10 Sepsis	\$44.85	764,308	1.1%	\$48,470,200	9.3%	\$83,623,563	9.2%
11 Hypertensive Disorders of Pregnancy	\$20.20	490,423	0.7%	\$15,091,124	2.9%	\$26,683,808	2.9%
12 Postabortion Care	\$17.06	201,544	0.3%	\$5,238,279	1.0%	\$9,262,214	1.0%
<b>TOTAL</b>		<b>4,177,115</b>	<b>6.0%</b>	<b>153,842,357</b>	<b>29.4%</b>	<b>269,940,387</b>	<b>29.7%</b>
<b>Other Maternal Conditions</b>							
13 Obstetric Fistula	\$29.86	5,362	0.0%	\$211,734	0.0%	\$351,390	0.0%
14 Urinary Tract Infection	\$0.39	3,526,848	5.1%	\$1,420,585	0.3%	\$2,374,705	0.3%
15 Mastitis	\$1.21	1,889,383	2.7%	\$2,365,245	0.5%	\$3,953,837	0.4%
<b>TOTAL</b>		<b>5,421,594</b>	<b>7.8%</b>	<b>3,997,563</b>	<b>0.8%</b>	<b>6,679,932</b>	<b>0.7%</b>
<b>Newborn Interventions</b>							
16 Prevention of ophthalmia neonatorum	\$0.03	7,339,060	10.6%	\$335,536	0.1%	\$588,795	0.1%
17 Newborn Complications (LBW, infection, etc.)	\$41.96	733,906	1.1%	\$43,994,730	8.4%	\$77,201,442	8.5%
18 PMICT	\$54.55	7,339	0.0%	\$571,957	0.1%	\$1,003,663	0.1%
<b>TOTAL</b>		<b>8,080,305</b>	<b>11.6%</b>	<b>44,902,224</b>	<b>8.6%</b>	<b>78,793,901</b>	<b>8.7%</b>
<b>STIs</b>							
19 Chlamydia	\$0.29	730,262	1.1%	\$274,473	0.1%	\$476,898	0.1%
20 Gonorrhea	\$0.71	343,653	0.5%	\$312,165	0.1%	\$542,388	0.1%
21 Syphilis	\$1.26	114,300	0.2%	\$171,348	0.0%	\$294,158	0.0%
22 Trichomoniasis	\$0.03	1,288,697	1.9%	\$45,080	0.0%	\$78,327	0.0%
23 Pelvic Inflammatory Disease	\$0.61	257,739	0.4%	\$203,547	0.0%	\$353,663	0.0%
<b>TOTAL</b>		<b>2,734,651</b>	<b>3.9%</b>	<b>1,006,613</b>	<b>0.2%</b>	<b>1,745,434</b>	<b>0.0%</b>
<b>TOTAL</b>		<b>69,500,991</b>	<b>196.1%</b>	<b>522,663,852</b>	<b>199.8%</b>	<b>909,307,207</b>	<b>199.8%</b>

# Results page

## TOTAL COST SUMMARY

Scenario 2: Accelerated Scale-up (100% Coverage by 2010)

	Current Cost per Case	Total No. of Cases 2005-2015	%	Total Costs 2005-2015 (Excl. Initiation)	%	Total Costs 2005-2015 (Incl. Initiation)	%
g) PRIMARY HEALTH CARE LEVEL							
CHILDREN BETWEEN 2 MONTHS AND 5 YEARS							
ARI							
Severe pneumonia or very severe disease	\$0.15	1,584,243	0.3%	\$230,303	0.4%	\$402,138	0.4%
Pneumonia	\$0.20	63,211,288	11.2%	\$12,754,126	21.5%	\$22,270,296	21.5%
Cough or cold	\$0.00	93,470,325	16.6%	\$0	0.0%	\$0	0.0%
Diarrhoea							
Severe dehydration	\$1.39	1,598,051	0.3%	\$2,227,584	3.8%	\$3,876,818	3.8%
Some dehydration	\$0.23	63,922,038	11.3%	\$14,952,771	25.2%	\$26,023,341	25.2%
No dehydration	\$0.16	94,285,007	16.7%	\$14,703,558	24.8%	\$25,589,619	24.8%
Severe persistent diarrhoea	\$1.35	3,276,004	0.6%	\$4,428,817	7.5%	\$7,707,777	7.5%
Persistent diarrhoea	\$0.16	4,714,250	0.8%	\$735,178	1.2%	\$1,279,481	1.2%
Dysentery	\$0.22	1,598,051	0.3%	\$349,004	0.6%	\$607,396	0.6%
Fever							
Very severe febrile disease	\$0.43	1,826,344	0.3%	\$792,296	1.3%	\$1,378,887	1.3%
Malaria	\$0.00	109,580,637	19.5%	\$0	0.0%	\$0	0.0%
Fever - Malaria unlikely	\$0.02	71,227,414	12.6%	\$1,100,036	1.9%	\$1,914,469	1.9%
Severe complicated measles	\$1.14	91,317	0.0%	\$104,171	0.2%	\$181,295	0.2%
Measles with eye or mouth complications	\$1.07	182,634	0.0%	\$195,125	0.3%	\$339,590	0.3%
Measles	\$0.06	1,552,392	0.3%	\$92,187	0.2%	\$160,440	0.2%

## Sample terms of reference

The Millennium Declaration (GA Resolution A/54/2000) adopted by all member states of the United Nations commits them to put in place measures necessary to attain peace, security, and development. The declaration was further elaborated in the subsequent UN Secretary-General's report (UN 2001) entitled *A Road Map Towards the Implementation of the United Nations Millennium Declaration* (GA Resolution A/56/326). The declaration puts forth quantifiable and time-bound goals to dramatically improve the human condition by 2015, later known as the Millennium Development Goals (MDGs). This commitment of the international community to improve the human condition was re-affirmed at the Monterrey Conference on Financing for Development in March 2002 and the World Summit on Sustainable Development in Johannesburg in 2002.

At the 2005 World Summit all 191 member states of the United Nations resolved to adopt, by 2006, and implement comprehensive national development strategies to achieve the MDGs. And many countries, in preparing their national development strategies, are searching for answers to some critical questions, among them: what needs to be done to achieve the MDGs, and what constraints need to be addressed? To answer these questions, governments, with the support of partners, need to undertake a detailed inventory of the full range of public interventions and investments needed to meet the MDGs and their associated costs as well as the most feasible way(s) of financing these interventions.

The Government of [Insert Country Name], in collaboration with the UN country team (including the World Bank) has decided to undertake an MDG planning process, including a detailed needs assessment, which will form the basis for the Common Country Assessment and UN Development Assistance Frameworks for future UN country team support to the country.



## Objectives

The overall objective of MDG planning is to put the country on a long-term planning path that is aligned with the MDGs. And this path, to start with, will be reflected in the next version of the national development strategy.

Specific objectives include:

- 1. Manage an effective and inclusive process.*  
Structure the development strategy process to make it nationally owned, with high-level and sustained political commitment. This process should build on and be integrated into existing national planning processes, and will need to include all key stakeholders and be regularly reviewed.
- 2. Take inventory.* Review all past and current planning documents, as well as assess the data available for monitoring progress toward achieving the MDGs. These include, but are not limited to, the national MDG report, the national development strategy (including Poverty Reduction Strategy Papers), sectoral investment programs, strategies, or plans and Public Expenditure Reviews (PERs), all of which have some costing component. Appropriate reference should also be made to a number of MDG costing and related studies from other parts of the world as well as relevant research materials from donors, civil society organizations, think tanks and so on, that may serve as useful reference materials.
- 3. Do a needs assessment.* Identify the full set of infrastructure, human, and financial resources required to support a scale-up of interventions through to 2015 to meet the MDGs.
- 4. Develop a 10-year framework for action.*  
Integrate the results from the above needs assessment into a long-term strategy document for achieving the MDGs.
- 5. Write a three-to-five-year MDG-based national development strategy.* Provide a short-term (3–5 year) strategy, linked to the national budget, that sets out clear benchmarks for monitoring and reporting on progress toward meeting the MDGs.
- 6. Set the stage for effective implementation.* Set a monitoring and accountability framework, promote dialogue and advocacy on the MDGs, and sign a compact between the government and donors pledging full support to implementing the national MDG-based development strategy.

The above work is considered by the UN country team as constituting the new Common Country Assessment and, together with other documentation, will be used to formulate the UN Development Assistance Framework.

## Detailed Description of Step 3

The specific objectives of the needs assessment exercise are to:

- **Identify interventions needed to achieve the MDGs.**
- **Define targets.**
- **Estimate resource needs.**
- **Check results.**

### 3(a) Identify interventions

The next step is identification of the full set of interventions needed to meet the MDGs. Many of the documents reviewed in the previous section should contain many, if not all, of these interventions. It is important to note that MDGs are outcome indicators and thus do not measure the full range of required inputs needed to achieve the MDGs. It may therefore be necessary to include interventions (and corresponding input targets) that are not specifically the MDG targets or indicators. Finally, these interventions will need to be grouped into investment clusters that mirror the work areas of the government. Below is a list of possible investment clusters, but this list should be shaped according to local priorities and conditions.

- *Rural development*—increasing food output and rural incomes.
- *Urban development*—promoting jobs, upgrading slums, and developing alternatives to new slum formation.
- *Health systems*—ensuring universal access to essential health services.

- *Education*—ensuring universal primary education and expanded post-primary and higher education.
- *Gender equality*—investing to overcome pervasive gender bias.
- *Environment*—investing in improved resource management.
- *Science, technology and innovation*—building national capacities.
- *Infrastructure and integration*—supporting cross-national infrastructure, trade integration, and government cooperation.
- *Public sector management*—investing in public sector management systems.

It is also important to note that interventions will need to be implemented across multiple sectors simultaneously in order to achieve the MDGs. There is thus a need to account for synergies across the clusters that may affect implementation and cost. A school feeding program, for example, that sources its food locally not only ensures better nutrition for children but leads to higher rates of enrollment and retention as well as increased incomes for local farmers.

### 3(b) Define targets

Targets need to be specified in terms of coverage and scale for each set of interventions identified in the previous section. These targets need to be ambitious enough to achieve the MDGs. And, to the extent possible, targets should be based on the MDGs as well as other internationally agreed-upon targets. Finally, consideration should be given to the country's current and projected demographic profile.

### **3(c) Estimate resource needs**

The estimation of resource requirements can be done using spreadsheet tools developed by the Millennium Project, or other tools that allow planners to project the scaling up of investments, based on a detailed needs assessment, and to estimate their associated costs. The spreadsheets will need to be adapted to the local conditions and priorities of each country.

Importantly, the cost estimates should be guided by two scenarios: first, intending to achieve the MDGs; and second, prioritizing among these investments according to the current levels

of available funds. To the extent possible, the costing work should be based on analysis at the subnational level, since the cost of service delivery, particularly for healthcare, is likely to differ from one geographical location to the next.

### **3(d) Check results**

The results of the needs assessment analysis will need to be checked. An important part of this check is to determine if the results are on the order of magnitude needed to achieve the MDGs. This handbook contains results from some analyses to help planners check their own needs assessment results.



## Key Responsibilities

1. The Ministry of Finance and Planning [Insert Appropriate Ministry Title] will take overall responsibility for the MDG planning exercise. The Ministry will appoint a senior coordinator who will:
  - Coordinate with all relevant line ministries to appoint team leaders in each ministry planning division to undertake sector-specific needs assessments.
  - Coordinate with the UN system and international financial institutions to help organize their support to MDG-based planning.
  - Constitute a task force/steering committee comprising senior ministry officials, senior UN staff, and staff from international financial institutions to oversee and monitor the MDG-based planning process.
  - Oversee the synthesis of sector needs assessments and the macroeconomic framework to support MDG-based investment needs as input into the national development strategy and medium-term expenditure framework processes.
2. Thematic working groups will be set up under the leadership of each ministry. The Minister [Insert Appropriate Title] will task the Director of Planning [Insert Appropriate Title] to lead the relevant thematic working group, which under ministerial direction will:
  - Lead the analysis on sector needs assessments.
  - Identify the key interventions, appropriate target groups, and estimate resource needs.
  - Share key assumptions and analysis with all relevant stakeholders to refine the list of interventions and targets.
  - Provide guidance on modifying the approach to suit the specific needs of the sector in the country.
  - Hire and supervise an analyst to undertake the actual needs assessment analysis in regular consultation and under supervision by the group.
3. The UN country team has a critical role in supporting the needs assessments. The UN country team will:
  - Appoint a coordinator who will work closely with the UN agencies to coordinate donor support.
  - Provide representation in each sector working group with technical and financial support.
  - Facilitate the participation of civil society and other key actors in the thematic working groups.
  - Organize its own program support (through the Common Country Assessment and UN Development Assistance Framework) around the government's MDG-based national development strategy.

## **Expected Deliverables**

- Needs assessment analysis for each investment cluster as well as a summary report of results.
- 10-year framework for action.
- Three- to five-year MDG-based national development strategy.
- Compact of shared commitment to achieving the MDGs and implementing the MDG-based national development strategy, signed by the government and its development partners.
- Updated UN Development Assistance Framework.
- Sustained advocacy and dialogue on MDGs, at both the national and international levels but primarily during the review of national development strategy (including Poverty Reduction Strategy Papers).



# Annex

## Glossary

**10-year framework for action** consolidates

*MDG needs assessment* results for each *investment cluster* into a single coherent long-term framework that charts a country's path to achieving the *Millennium Development Goals* (MDGs).

**Absorptive capacity** is the extent to which investments can be immediately and effectively scaled up in a country based on its human resources, infrastructure, and management systems. If these capabilities are constrained, they can be substantially improved over the medium term through systematic investments.

**Administrative data** are information collected by government agencies or other organizations in the course of service provision. They may include, for example, the number of visits to a clinic or the proportion of women in local government.

**At-scale** means that *interventions* are implemented at the appropriate scale for achieving the MDGs. Scaling up to the national level is significantly more complex than planning and implementing a single project and requires an intersectoral approach and a carefully designed multiyear planning framework.

**Bottom-up analysis** is a core principle of this approach for estimating the inputs needed to reach the MDGs. It implies that such an estimate must be calculated by an *intervention*-based assessment of a country's needs—in terms of human resources, financial resources, and infrastructure. This approach differs from others that use macroeconomic growth models, for example, that focus primarily on the aggregate resource needs

without necessarily basing this estimate on sector-specific interventions-based costing.

**Capacity-critical interventions** are *interventions* that have to be made immediately in order to build the necessary capacity to scale up the delivery of other MDG-related interventions. Capacity-critical interventions include improving management systems and human resources and building infrastructure.

**Capital costs** are one-time fixed investments for specific *interventions*. Examples include costs of building a health clinic or school, purchasing hospital beds, and providing water pipes.

**Coverage targets** are quantifiable targets that identify the population to be reached by specific *interventions*. These targets are interim milestones that measure progress toward the MDGs. For example, ensuring that x percent of the population has access to health clinics is a coverage target that contributes to the *outcome target* of achieving two-thirds reduction of infant mortality rates between 1990 and 2015.

**Dutch disease** refers to the appreciation of a country's real exchange rate as a result of a sudden rise in foreign exchange inflows. Named after the effect of natural gas discoveries in the Netherlands, the phenomenon is typically linked to a consumption boom. If left unchecked it can make the country's exports more expensive, lead to a fall in overall export volumes, and lower economic growth. Since increased official development assistance for the MDGs will primarily finance supply-side investments instead

increased aid volumes will lead to a substantial exchange rate appreciation or Dutch disease.

**Economic costs** are the full cost of providing *interventions* (including noncash components, such as the imputed cost of community labor) associated with financing and implementing interventions.

**Equity-sensitive needs assessment** refers to a needs assessment analysis that explicitly recognizes and accounts for the different needs of groups or regions within a country. Planners can use this assessment to prepare and implement an *MDG-based national development strategy* that quickly and equitably provides essential services and infrastructure to the entire population in need. (See *MDG needs assessment*.)

**Financial costs** are the direct cash outflows associated with financing and implementing *interventions*.

**Input/process information** describes the financial and physical resources that have been deployed to achieve the desired outcomes. Depending on the stage of implementation, this information will include procurement and salary data; deliveries, dispensation, construction, and training activities; infrastructure completed; and numbers of facilities opened and new staff posted in previously underserved areas. Policymakers and activists can use input information to track progress in implementing development strategies.

**Interventions** are goods, services, and infrastructure that need to be provided to meet the MDGs. Provision of antiretroviral drugs

It is difficult to make an unambiguous distinction between interventions and policies for ensuring effective implementation of MDG strategies. Interventions describe “what to do” and specify “how much” of each activity is needed. Policies describe “how to do it,” often through institutional rules, procedures, and responsibilities.

**Investment clusters** are areas of activity around which the full set of *interventions* needed to reach the MDGs can be organized. These areas of activity should mirror a national government’s core areas of work to facilitate planning and implementation. The handbook identifies nine investment clusters.

**Macroeconomic frameworks** identify how public expenditures and revenues relate to key macroeconomic variables, such as GDP growth, national savings rates, inflation, and current account balances. MDG-consistent macroeconomic frameworks focus on how to manage macroeconomic stability in the context of increased public expenditures on the MDGs.

**Marginal cost** is the extra cost associated with producing an additional unit of output.

**MDG-based development strategy** is an ambitious goal-based national strategy that aims to achieve, or exceed, the MDGs. This strategy sets the short-term (three- to five-year) objectives, consistent with a 10-year framework for action to achieve the MDGs. An MDG-based development strategy is a detailed, operational document, linked to a *medium-term expenditure framework* and to monitoring and accountability mechanisms. Existing national poverty reduction

Papers, can be aligned with the MDGs to become such a document.

**MDG needs assessments** estimate the inputs—in terms of human resources, financial resources, and infrastructure—needed to reach the MDGs in each country by 2015. They provide the basis for developing an investment strategy for achieving the MDGs, which underpins an *MDG-based development strategy*.

### **Medium-term expenditure frameworks**

(MTEFs) link national policies and programs with a budgetary plan. The MTEF combines an estimation of the current and medium-term costs of existing plans and matches these estimates with a summary of available resources to form the basis of annual national-level budgets.

### **Millennium Declaration**

is the UN General Assembly resolution adopted by 189 UN Member Nations on September 18, 2000. The declaration commits its signatories to the fundamental values underpinning the MDGs and contains the objectives that were later extracted into the MDGs. This resolution (A/Res/55/2) is available at [www.un.org/millennium/declaration/ares552e.pdf](http://www.un.org/millennium/declaration/ares552e.pdf).

### **Millennium Development Goals (MDGs)**

are the world's time-bound and quantified targets for addressing extreme poverty in its many dimensions, reaffirmed by all member states of the United Nations at the 2000 UN World Summit.

**Outcome indicators** track the levels and trends in variables that quantify the outcomes of policies and investments. Examples are maternal mortality ratios, child mortality rates, access to water and sanitation, and other MDG targets and indicators.

outset of MDG planning to establish a baseline—and at all later stages to measure and evaluate a strategy's effectiveness.

**Outcome-oriented** means that development processes and policies are based on the achievement of specific development objectives, such as the MDGs.

**Outcome targets** are quantifiable targets to be achieved by implementing a set of *interventions*. Often the MDG targets themselves can be considered outcome targets, such as the target for reducing maternal mortality by three-quarters between 1990 and 2015. But where the MDG target is not quantified, countries will need to formulate their own outcome targets.

### **Poverty Reduction Strategy Papers**

are prepared by countries in collaboration with the World Bank, International Monetary Fund, and other development partners and describe the country's macroeconomic, structural, and social policies and programs to promote growth and reduce poverty. They also map out the associated external financing needs and major sources of financing (see <http://poverty.worldbank.org/prsp/> for more information).

**Proxy data** may be used as a reasonable approximation of a desired indicator when that indicator is not available. For example, the number of people living within 2 kilometers of a motorized pick-up point may not be known, but road density (kilometers of paved road per 1,000 people) is relatively easy to calculate and gives a good approximation of the desired indicator.

**Quick Impact Initiatives** are *interventions* that



investments in infrastructure or capacity and should therefore be implemented as quickly as possible, as a first step within the broader context of an *MDG-based development strategy*.

**Recurrent costs** are ongoing operational costs that vary directly with the level of output, such as labor, raw material, or energy costs. Doctors' salaries are an example of a recurrent cost.

**Scale-up path** is the path by which a country will increase the pace and reach of providing the *interventions* required to achieve the MDGs. This path is determined by national priorities as well as by immediate capacity constraints. (See *at-scale*.)

**Survey data** are information collected directly from individuals, households, or other units of analysis, independent of service provision. Survey

data can come from such sources as national Demographic and Household Surveys (DHS) or the Multiple Indicator Cluster Survey (MICS).

**Synergies** occur when multiple *interventions* targeted at the same population group have complementary and mutually reinforcing impacts, leading to a reduction in the overall cost of providing each intervention. For example, provision of safe drinking water can reduce the prevalence and therefore cost of treating diarrhea cases. The impact of synergies on the costs associated with achieving the MDGs is difficult to assess precisely, but can be estimated more broadly.

**UN Millennium Project** is an independent advisory body commissioned by the UN Secretary-General to propose the best strategies for meeting the MDGs.

## Millennium Development Goals

### Goal 1 **Eradicate extreme poverty and hunger**

- **Target 1** Halve, between 1990 and 2015, the proportion of people whose income is less than \$1 a day
- **Target 2** Halve, between 1990 and 2015, the proportion of people who suffer from hunger

### Goal 2 **Achieve universal primary education**

- **Target 3** Ensure that, by 2015, children everywhere, boys and girls alike, will be able to complete a full course of primary schooling

### Goal 3 **Promote gender equality and empower women**

- **Target 4** Eliminate gender disparity in primary and secondary education, preferably by 2005, and in all levels of education no later than 2015

### Goal 4 **Reduce child mortality**

- **Target 5** Reduce by two-thirds, between 1990 and 2015, the under-five mortality rate

### Goal 5 **Improve maternal health**

- **Target 6** Reduce by three-quarters, between 1990 and 2015, the maternal mortality ratio

### Goal 6 **Combat HIV/AIDS, malaria, and other diseases**

- **Target 7** Have halted by 2015 and begun to reverse the spread of HIV/AIDS
- **Target 8** Have halted by 2015 and begun to reverse the incidence of malaria and other major diseases

### Goal 7 **Ensure environmental sustainability**

- **Target 9** Integrate the principles of sustainable development into country policies and programmes and reverse the loss of environmental resources
- **Target 10** Halve by 2015 the proportion of people without sustainable access to safe drinking water and basic sanitation
- **Target 11** Have achieved by 2020 a significant improvement in the lives of at least 100 million slum dwellers

### Goal 8 **Develop a global partnership for development**

- **Target 12** Develop further an open, rule-based, predictable, nondiscriminatory trading and financial system (includes a commitment to good governance, development, and poverty reduction—both nationally and internationally)
- **Target 13** Address the special needs of the Least Developed Countries (includes tariff- and quota-

and cancellation of official bilateral debt, and more generous ODA for countries committed to poverty reduction)

- **Target 14** Address the special needs of landlocked countries and small island developing states (through the Programme of Action for the Sustainable Development of Small Island Developing States and the twenty-second General Assembly provisions)
- **Target 15** Deal comprehensively with the debt problems of developing countries through national and international measures in order to make debt sustainable in the long term
- **Target 16** In cooperation with developing countries, develop and implement strategies for decent and productive work for youth
- **Target 17** In cooperation with pharmaceutical companies, provide access to affordable essential drugs in developing countries
- **Target 18** In cooperation with the private sector, make available the benefits of new technologies, especially information and communication technologies

## UN Millennium Project Task Force Reports

### **Task Force on Hunger**

*Making Hunger: It Can Be Done*

### **Task Force on Education and Gender Equality**

*Toward Universal Primary Education: Investments, Incentives, and Institutions*

*Taking Action: Achieving Gender Equality and Empowering Women*

### **Task Force on Child Health and Maternal Health**

*Who's Got the Power? Transforming Health Systems for Women and Children*

### **Task Force on HIV/AIDS, Malaria, TB and Access to Essential Medicines**

*Combating AIDS in the Developing World*

*Coming to Grips with Malaria in the New Millennium*

*Investing in Strategies to Reverse the Global Incidence of TB*

*Prescription for Healthy Development: Increasing Access to Medicines*

### **Task Force on Environmental Sustainability**

*Environment and Human Well-Being: A Practical Strategy*

### **Task Force on Water and Sanitation**

*Health, Dignity, and Development: What Will It Take?*

### **Task Force on Improving the Lives of Slum Dwellers**

*A Home in the City*

### **Task Force on Trade**

*Trade for Development*

### **Task Force on Science, Technology, and Innovation**

*Innovation: Applying Knowledge in Development*



## Ten key recommendations of the UN Millennium Project

### **Recommendation 1**

Developing country governments should adopt development strategies bold enough to meet the Millennium Development Goal (MDG) targets for 2015. We term them MDG-based national development strategies. To meet the 2015 deadline, we recommend that all countries have these strategies in place by 2006. Where Poverty Reduction Strategy Papers already exist, those should be aligned with the MDGs.

### **Recommendation 2**

The MDG-based national development strategies should anchor the scaling up of public investments, capacity building, domestic resource mobilization, and official development assistance. They should also provide a framework for strengthening governance, promoting human rights, engaging civil society, and promoting the private sector.

### **Recommendation 3**

Developing country governments should craft and implement the MDG-based national development strategies in transparent and inclusive processes, working closely with civil society organizations, the domestic private sector, and international partners.

### **Recommendation 4**

International donors should identify at least a dozen MDG “fast-track” countries for a rapid scale-up of official development assistance in 2005, recognizing that many countries are already in a position for a massive scale-up on the basis of their good governance and absorptive capacity.

### **Recommendation 5**

Developed and developing countries should jointly launch, in 2005, a group of Quick Impact Initiatives (“Quick Wins”) actions to save and improve millions of lives and to promote economic growth. They should also launch a massive effort to build expertise at the community level.

### **Recommendation 6**

Developing country governments should align national strategies with such regional initiatives as the New Partnership for Africa's Development and the Caribbean Community (and Common Market), and regional groups should receive increased direct donor support for regional projects.

### **Recommendation 7**

High-income countries should increase official development assistance (ODA) from 0.25 percent of donor GNP in 2003 to about 0.44 percent in 2006 and 0.54 percent in 2015 to support the MDGs, particularly in low-income countries, with improved ODA quality (including aid that is harmonized, predictable, and largely in the form of grants-based budget support). Each donor should reach 0.7 percent no later than 2015 to support the MDGs and other development assistance priorities. Debt relief should be more extensive and generous.

### **Recommendation 8**

High-income countries should open their markets to developing country exports through the Doha trade round and help Least Developed Countries raise export competitiveness through investments in critical trade-related infrastructure, including electricity, roads, and ports. The Doha Development Agenda should be fulfilled and the Doha Round completed no later than 2006.

### **Recommendation 9**

International donors should mobilize support for global scientific research and development to address special needs of the poor in the areas of health, agriculture, natural resource and environmental management, energy, and climate. We estimate the total needs to rise to approximately \$7 billion a year by 2015.

### **Recommendation 10**

The UN Secretary-General and the UN Development Group should strengthen the coordination of UN agencies, funds, and programs to support the MDGs, at headquarters and country level. The UN country teams should be strengthened and should work closely with the international financial institutions to support the MDGs.



## Comparison of costing methodologies

Methodology	Basic question	Description
Intervention-based needs assessment	What investments are needed across sectors to achieve the Millennium Development Goals (MDGs) and what are their associated costs?	Detailed investment models are used to project coverage rates and unit costs for the individual interventions needed across sectors to achieve the MDGs, and related costs are then generated.
Costing based on aggregate unit costs	What is the total cost of filling the gap between current expenditures and those required to achieve each MDG?	The total unit costs for achieving each MDG are estimated and are then multiplied by the cost of filling the coverage gap.
Costing based on incremental capital-output ratio (ICOR)	What aggregate investment levels are required to achieve the poverty MDG, based on the per capita growth rate needed to halve poverty by 2015?	The per capita growth rate to halve poverty by 2015 is calculated assuming a fixed elasticity of poverty with respect to GDP growth. This rate is then used in a simple growth model to estimate the financial resources needed to achieve the poverty MDG (note that the financial resources are calculated based on an assumption of both the proportion of total resources available for new investment and any additional resources generated by such investment—the ratio of additional resources to new investment is termed ICOR).
Costing based on aggregate input-outcome elasticities	What financial resources are needed to achieve the MDGs, based on the modeled relationship between funding an intervention and its impact on MDG attainment (aggregate expenditure-outcome model)?	The estimated impact of marginal change in financial investment on an outcome (that affects MDG achievement) is multiplied by the MDG target to project the funding needed to achieve the MDG (that is, the percentage change in child mortality due to the percent change in health-related expenditures is multiplied by the child mortality target to project funding required to achieve the child mortality MDG).



## Contributors and reviewers

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