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The 8 Millennium Development Goals
for cutting poverty are affordable
and within reach ...
if we can renew the push to do it.

The push includes
a special global effort to
build up science & technology
in the poorest countries.

by Jeffrey D. Sachs
& John W. McArthur

This year

marks a pivotal moment in international efforts to fight extreme poverty. During the United Nations (UN) Millennium Summit in 2000, a total of 147 Heads of State gathered and adopted the Millennium Development Goals (MDGs) to address extreme poverty in its many dimensions—income poverty, hunger, disease, lack of adequate shelter, and exclusion—while promoting education, gender equality, and environmental sustainability, with quantitative targets set for the year 2015. The UN committed to reviewing progress towards the goals in 2005, recognising that by this time only a decade would be left to fulfil the MDGs.


We are now at the 5-year juncture with a stark realisation: many of the poorest regions of the world, most notably in sub-Saharan Africa, are far off-track to achieve the goals. Yet the MDGs are still achievable. The lives of hundreds of millions of people could be dramatically improved and millions could be saved every year, but only if the world takes bold steps in 2005.

The UN Millennium Project, an independent advisory body of Secretary-General Kofi Annan, was launched in 2002 to identify practical steps for achieving the Goals. In the course of the project's work, it became clear that the scarcity of financial resources is a critical constraint in the poorest countries. Increased financing, linked to effective governance structures in low-income countries, can produce dramatic results.

Fortunately, what is crushingly expensive for the poorest of the poor is shockingly inexpensive for the rich. Thus, increases in official development assistance totalling only a few tenths of one percent of donor-country income, if properly directed and integrated into national poverty reduction strategies, can reduce child mortality substantially. The same effect is true in other dimensions of poverty including hunger, lack of access to safe drinking water and sanitation, slum conditions in urban areas, or lack of schooling. Importantly, interventions to reduce one dimension of poverty almost invariably assist in reducing other dimensions.


The increased aid required to meet the MDGs has been promised, though not yet delivered. What is needed, the UN Millennium Project has found, is roughly a doubling of the \$80 billion currently budgeted by rich countries as development assistance,


Millennium Development Goals

1  Reduce extreme poverty and hunger by half relative to 1990.

2  Achieve universal primary education.

3  Promote gender equality and empowerment of women.

4  Reduce child mortality by two-thirds relative to 1990.

5  Improve maternal health, including reducing maternal mortality by three-quarters relative to 1990.

6  Prevent the spread of HIV/AIDS, malaria, and other diseases.

7  Ensure environmental sustainability.

8  Develop a global partnership for development.

with the increased funding going towards scaling up the critical interventions needed to achieve the MDGs in well governed, developing countries. This \$160 billion would amount to approximately 0.5% of combined income of donor nations. To meet these needs as well as non-MDG priorities such as humanitarian projects, postwar Iraqi reconstruction, or Indian Ocean tsunami relief, a reasonable figure would be 0.7% of rich country income, which is what all donor countries have long promised but few have fulfilled.

Any strategy to meet the Goals requires a special global effort to build scientific and technological capacities in the poorest countries. These efforts should focus on strengthening institutions of higher education.

Why the Shortfalls?

Since the goals were set, the performance across countries has been mixed. Many parts of the world are making very good progress. Improvements throughout East Asia and South Asia, home to more than half the world's population, have been especially remarkable.

However, there are huge disparities. Sub-Saharan Africa is in pervasive crisis, with rising extreme poverty, shockingly high child and maternal mortality, and a trajectory that has many of the countries failing to meet most of the MDGs. Additionally, Latin America, the Middle East and North Africa have made little headway in reducing the rates of extreme poverty in recent years. Even Asia remains home to hundreds of millions of people living in extreme poverty.

Virtually all countries are failing in the goal of achieving environmental sustainability, and most lag severely on the goals for gender equality and maternal mortality.

The UN Millennium Project identified four broad categories to explain why some regions are failing to meet MDGs and why some goals are falling short almost everywhere.

◆ First, not surprisingly, is the problem of poor governance.

◆ Second is the pervasive problem of poverty traps, in which poor people are simply too poor to carry out the investments needed to overcome hunger, disease, and inadequate infrastructure, and as a result are also unable to achieve sustained economic growth.

◆ Third, many countries are failing to achieve at least some of the MDGs because of persistent pockets of poverty.

◆ Fourth, some of the goals are falling short almost everywhere because of policy neglect, where policymakers are unaware of the challenges, unaware of what to do, or neglectful of core public issues.

Mobilizing Science & Technology

If governance is adequate, the key to achieving the MDGs is a scaling up of investments in targeted sectors and regions. Some real breakthroughs are possible, if the existing technologies can be implemented, at scale, in the poorest parts of the world. Good science and practical experience have identified core technologies that can deliver increased food production, disease control, and access to basic infrastructure such as safe drinking water.

When these basic investments are in place, it becomes much easier for the country's private sector to thrive, attract foreign investment, and improve the country's economy, thus creating jobs and raising incomes.

Advances in science and technology allow society to mobilise new sources of energy and materials, fight disease, produce crops, assemble and disseminate information, transport people and goods with greater speed and safety, restrict family size as desired, and much more. But these technologies are not free. They are the fruits of enormous social investments in education, scientific discovery, and targeted technological projects. Every successful high-income country makes special public investments to promote scientific and technological capacities.

The poor countries have largely been spectators, or at best, users of the technological advances produced in the high-income world. Developing countries have tended to lack large scientific and technological communities. Chronically underfunded, their scientists and engineers emigrate to find satisfying employment in scientific research and development. Moreover, private companies focus their innovation activities on the problems and projects of high-income countries, where the financial returns are likely.

Any strategy to meet the Goals requires a special global effort to build scientific and technological capacities in the poorest countries. These efforts should focus on strengthening institutions of higher education. Efforts are also needed to direct research and development towards specific

Ending Poverty in the First Degree

Most of the world's people live in varying degrees of poverty. Poverty in the first degree means living on less than \$1 a day. 1100 million people live that way. Thousands die everyday from starvation, sickness, despair. Just a dollar a day more could lift them higher, to gain a fighting chance at survival.

The World Bank measures poverty using a complicated statistical standard. The standard is used by Prof. Jeffrey Sachs in his book, **The End of Poverty**. Income of \$1 per day per person, measured at purchasing power parity, means extreme, or absolute, poverty. Another category — income between \$1 per day and \$2 per day — is used to measure moderate poverty. The third measure is relative poverty,

and applies to the different levels of poverty in different countries. It is generally measured as a household income level in relation to average national income.

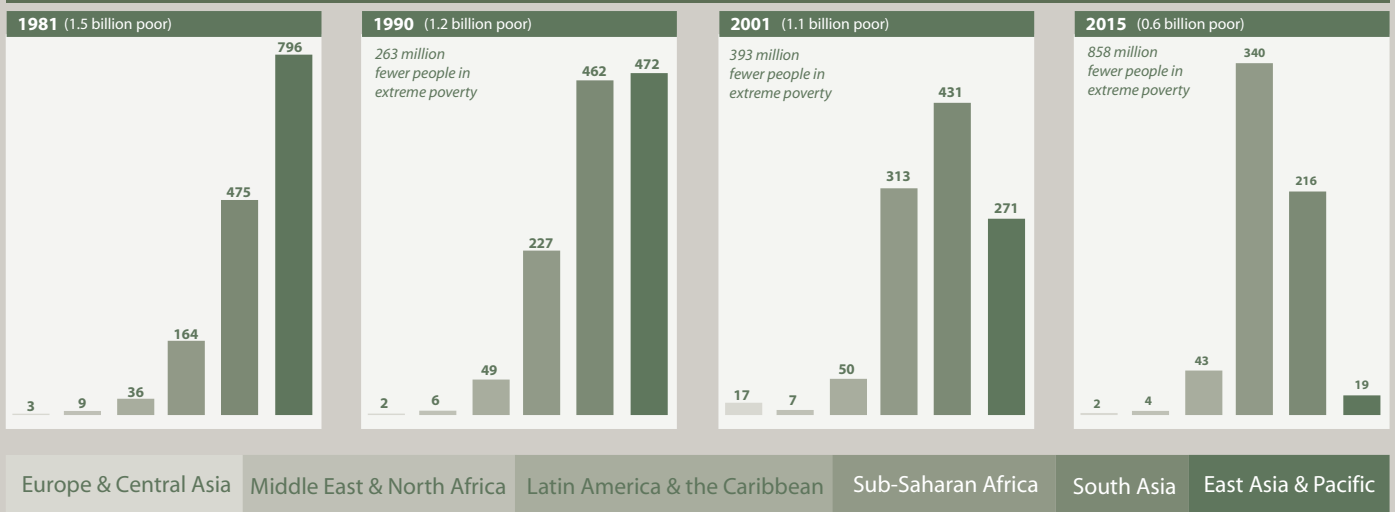
The World Bank estimated in 2001, that about 1.1 billion people — the poorest of the poor — were living in extreme poverty, down from 1.5 billion in 1981. Another 1.6 billion people — “the poor” — live in moderate poverty. All told, the extreme poor and the poor make up around 40% of humanity, according to Jeffrey Sachs.

The achievement of the world's Millennium Development goals could put the world on a path to ending absolute poverty.

People Trapped in Extreme Poverty

People living on less than \$1 a day (in millions)

Poverty rates are falling, but progress has been uneven. Since 1990 extreme poverty in developing countries has fallen from 28% to 21%. Over the same time the population grew 15% to 5 billion people, leaving 1.1 billion people in extreme poverty. If economic growth rates in developing countries are sustained, global poverty will fall 10% — a striking success. But hundreds of millions of people will still be trapped in poverty — especially in Sub-Saharan Africa and South Asia.



Source: World Development Indicators, World Bank staff estimates, 2005

challenges facing the poor in disease, climate, agriculture, energy, and environmental degradation.

Realistic prospects exist to develop new vaccines and medicines for malaria, HIV/AIDS, tuberculosis, and other killer diseases in developing countries. Improved sexual and reproductive health products — including microbicides, new female-controlled methods, and male contraceptives — could expand their use. Improved agricultural varieties and cropping systems can increase food productivity of rain-fed agriculture. Accurate envi-

ronmental monitoring and forecasting can help focus actions with the greatest positive impact. Other examples abound.

The UN Millennium Project is calling for a major effort for targeted science and technology development in high-priority areas, reaching \$7 billion every year by 2015. \$4 billion could be directed at public health, following the recommendations of the World Health Organization (WHO) Commission on Macroeconomics and Health. \$1 billion would go toward agriculture and improved nat-

ural resource management by more than doubling the current budget of the Consultative Group on International Agricultural Research (CGIAR). Roughly another \$1 billion would go toward improved energy technologies, and perhaps \$1 billion is needed for greater understanding of climate change.

The achievement of the MDGs could put the world on a path to ending absolute poverty, and this accomplishment will be central to global security.

Part of the strategy to end poverty should be to adequately support the specialized international institutions, such as the CGIAR, the World Health Organization, the Food and Agriculture Organization, the UN Environment Programme, and the IAEA.

A Different, Better World

How much will it cost to achieve the goals? What share of total costs can be borne through increased domestic resources, and what must be provided by donors? These questions can be properly answered only through detailed needs assessments that must be undertaken at the country level.

As a first attempt, the UN Millennium Project collaborated with local research organizations to prepare MDG needs assessments for five countries to quantify infrastructure, human resource, and financial needs. We found that Ghana, for example, required annual public investments for the MDGs totalling to \$80 per person in 2006 (compared with \$40 per person spent in 2002), scaling up to \$124 in 2015. Needs assessments for other low-income countries show similar amounts of investments required for the MDGs.

As cited earlier, for donor countries a commitment of 0.7% of their GNP is required to achieve the goals. This doubling of annual official development assistance pales beside the wealth of high-income countries—and the global military budget of \$900 billion a year.

Reaching the MDGs will bring tremendous benefits worldwide. If the goals are achieved over the next ten years:

- ◆ More than 500 million people will be lifted out of poverty in 2015;

- ◆ More than 300 million people will no longer suffer from hunger;

- ◆ Roughly 30 million fewer children will die before their fifth birthdays, and about 20 million fewer will die compared with the current declining trajectory of child mortality. More than 2 million mothers will be saved.

- ◆ Safe drinking water will become accessible for another 350 million people, and the benefits of basic sanitation to 650 million, allowing them to lead healthier and more dignified lives.

- ◆ Environmental degradation will be reversed.

- ◆ Hundreds of millions more women and girls will be leading their lives in freedom with more security and more opportunity.

The achievement of the MDGs could put the world on a path to ending absolute poverty, and — as recognised by the UN Secretary-General's report *In Larger Freedom* — this accomplishment will be central to global security.

World leaders meet at the UN General Assembly in September 2005 to review progress on the Millennium Declaration. They are charged with affirming commitments to a series of specific actions to lay the foundation for a decade of rapid growth and social improvements in the most impoverished places on the planet.

To ensure success, in 2005 the world must start building capacity, improving policies, and delivering the investments needed to meet the Goals.

With urgent action, we can and will usher in a decade of high ambition and achievement for ending poverty.

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*UN Millennium Project Task Force leaders co-authored a series of essays in the *Lancet*, a British medical journal at www.thelancet.com over the past year on the Millennium Project. To learn more, visit www.unmillenniumproject.org*