

GREENING GROWTH: ENVIRONMENT AND SUSTAINABLE DEVELOPMENT

The world's poor are disproportionately affected by environmental degradation and lack of access to clean, affordable energy services. Climate change, loss of biodiversity and depletion of natural resources are both national and global issues requiring cooperation among all countries. UNDP works to strengthen national capacity to manage the environment in a sustainable manner while ensuring adequate protection for the poor, by identifying and sharing best practices, providing policy advice and forging partnerships.

The scientific evidence gathered by the UN Intergovernmental Panel on Climate Change over the last two decades has contributed to an ever-broader consensus about the scale of the changes occurring in the global climate, the connection between human activities and climate change, and the effects of climate change. While the exact impact of greenhouse gas emission is not easy to forecast, enough is now known to recognize that there are large risks of potentially catastrophic outcomes for people and the planet if nothing is done to stabilize atmospheric concentrations of heat-trapping gases at levels that are considered safe.

Genuine concern about the effect of climate change on future generations dictates that the world must act now. The effects of climate change bear heavily on human development, with severe impact on the world's poorest.

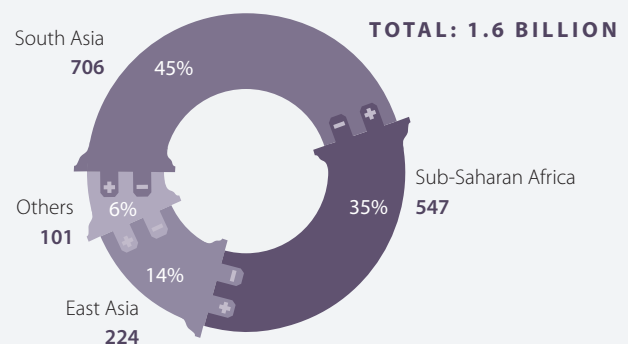
In its 2007/2008 Human Development Report, *Fighting Climate Change: Human solidarity in a divided world*, UNDP makes the case for immediate, affordable and effective responses. It asserts that with enough political will and global action, societies can deal with the impact of climate change and adapt to continue to advance human development despite them. Identifying a 10-year window of opportunity, the Report lays out a plan of action, including strategies for reducing emissions while using market

mechanisms to mitigate their effects, financing low-carbon initiatives for developing countries, strengthening energy efficiency regulatory standards, and financing and supporting adaptation strategies in poor countries.

In December 2007, the UN Climate Change Conference in Bali, **Indonesia** assembled more than 10,000 participants from over 180 countries to plan the way forward. The conference led to a number of forward-looking decisions including the Bali Action Plan, which sets the terms for new negotiations around climate change, to be concluded by 2009. The Bali Action Plan also establishes a negotiation process to agree on emission reductions for the period after 2012. At the same time, most industrialized countries under the Kyoto Protocol agreed to take leadership to achieve the 'deep cuts in global emissions' called for in the Bali Action Plan. For developing countries, three major agreements were reached. First, critical pledges were made in Bali to tackle deforestation and conserve forest cover as one of the most effective ways of preventing further emission increases. Second, countries agreed to consider how to finance and remove obstacles to the scaling up of clean energy technology trans-

LIVING WITHOUT ELECTRICITY

People without access to electricity (millions, 2004)



Source: UNDP Human Development Report 2007/2008

fer from industrialized nations to the developing world. And third, there was agreement on the launching of the Adaptation Fund, a resource managed by the Global Environment Facility (GEF) that will fast-track adaptation projects and programmes for countries meeting certain fiduciary criteria.

UNDP is working to help coordinate climate change adaptation and mitigation responses and support national capacity to continue to advance development strategies. For example, around Lake Baringo in Northern Kenya, which scientists predict will dry up in about 20 years, UNDP is helping to restore the soil by supporting villagers to farm and graze their animals in new ways as the volume of rainfall declines. More resilient and versatile native species of grass are being planted that are also enhancing the biodiversity of the area.

UNDP champions innovative strategies to reduce greenhouse gas (GHG) emissions and promote energy efficiency. UNDP supports the Clean Development Mechanism, which provides new energy financing opportunities for developing countries based on public and private investments from industrialized countries required to reduce their GHG emissions under the Kyoto Protocol. Governments or companies in industrialized countries can finance emission-reduction projects in developing countries as a means of meeting their own obligations under the protocol. This means that developing countries can benefit by receiving financing for the adoption of low-emission energy technologies, while industrialized countries can fulfill their emission reduction commitments at lower costs than they would incur through actions at home.

UNDP has also joined forces with the banking and insurance company Fortis on an MDG Carbon Facility, an innovative means of harnessing the vast resources of the carbon market to bring long-term sustainable development to more countries. Under the terms of the partnership, UNDP will help developing countries formulate projects intended to reduce GHG emissions, and will ensure that these projects meet the Kyoto Protocol's agreed standards and deliver real, sustainable benefits to the environment and broader human development. Fortis will then purchase and sell-on the emission reduction credits generated by these projects. The proceeds from Fortis' purchases will provide developing countries and communities with a new flow of resources to finance much needed investment and to promote development. Among the MDG Carbon Facility's first project agreements are three methane capture projects



In Nigeria, a solar panel provides indoor lighting as part of a UNDP-supported pilot project to expand the use of solar energy.

located in **The Former Yugoslav Republic of Macedonia, Uzbekistan and Yemen.**

The Government of Japan is the largest bilateral donor to Africa in the area of environment and energy. For the past 15 years, Japan has been working with UNDP through the Tokyo International Conference on African Development (TICAD) to contribute to boosting economic growth, ensuring human security, achieving the MDGs and consolidating peace and security across the continent. Over the last half-decade, TICAD has provided about \$84 million in support to various initiatives.

In **Tanzania**, farmers on the southern shores of Lake Victoria are gearing up to capture clean wind and solar energy to drive the pumps necessary for watering their crops. Instead of using diesel-powered water pumps, they are taking advantage of eight solar and windmill energy generating irrigation projects that have been established in four districts with TICAD support. The irrigation pumps take water from Lake Victoria and pipe it to a central tank, then onwards to several storage tanks where it will flow by gravity through canals to farmers' fields. The project, assisted by a dedicated TICAD UNV volunteer, is estimated to benefit some 400 farmers. In addition to providing the farmers with an energy source that is clean and renewable, the project works with community-based organizations to train farmers to operate and maintain the pumps.

Each environmental challenge presents UNDP with an opportunity to work with national partners to develop institutional capacity around successful responses. In **Belarus**, a project to restore over 40,000 hectares of wetland ecosystems on 17 degraded peatlands ended up not only rehabilitating and safeguarding a larger than projected area, but also strengthening integrated ecosystem management within the Ministry of Forestry, with enhanced monitoring



Workers inspect plants at a nursery in Terengganu, Malaysia. UNDP is supporting the state's first ever community-based mangrove regeneration project to better manage the mangrove ecosystem resources – including tripling the yield of nurseries like this.

systems featuring new indicators of biological diversity and emission and/or sequestration of carbon dioxide and methane. The monitoring network will now be extended to cover all degraded wetlands.

In **Malaysia**, UNDP and local company *Petra Perdana Bhd.*, in partnership with the State Government of Terengganu, have joined 150 families to implement a community-based mangrove regeneration project. Terengganu is one of the poorer states in Malaysia, with a household poverty rate in 2004 of 15.5 percent, compared to the national average of 5.9 percent. As of December 2007, four mangrove-replanting schemes have been completed and a nursery has been established. The community has managed to increase the nursery's capacity from an initial 10,000 to 36,000 saplings.

Together with the UN Environment Programme (UNEP) and The World Bank, UNDP is one of the primary implementing agencies of GEF, which helps developing countries fund projects and programmes that protect the global environment. GEF grants support projects related to biodiversity, climate change, international waters, land degradation, the ozone layer, and persistent organic pollutants. UNDP supports the development of projects in the areas covered by GEF, and also manages two corporate programmes on behalf of the GEF partnership – the Small Grants Programme, with a portfolio of over 5,000 community-based projects, and the GEF National Consultative Dialogue Initiative, which strengthens country ownership and involvement in GEF activities through multiple stakeholder dialogue. As of February 2008, UNDP's GEF-funded projects amounted to \$7.5 billion, representing over 560 projects as well as more than 530 enabling activities. The Small Grants Programme, which supports small-scale activities in GEF focus areas and the generation of sustainable livelihoods by non-governmental and community-based

organizations in more than 100 developing countries, has allocated another \$479.7 million.

For over two decades, the Montreal Protocol on Substances that Deplete the Ozone Layer has sought to reverse past damage done to the Ozone Layer by supporting efforts to eliminate the consumption and production of ozone-depleting substances. With the financial support of the Multilateral Fund for the Implementation of the Montreal Protocol, the GEF and bilateral donors, UNDP assists countries with economies in transition and developing countries to comply with the Montreal Protocol's control measures. UNDP India has helped establish an "Ozone Cell" to monitor India's compliance with the Montreal Protocol on eliminating chlorofluorocarbons (CFCs) in all sectors. In addition to raising public awareness and assisting the Ministry of Environment and Forests to phase out CFCs in such areas as foam and refrigeration manufacturing, the Ozone Cell assists companies to identify sustainable technologies. Access to energy services affects practically all aspects of sustainable development, including access to water, agricultural productivity, health care, education, job creation, and climate change. Managing energy and environment is central to achieving the MDGs.

In **Lebanon**, UNDP has partnered with the Ministry of Finance and the Ministry of Energy and Water to scale up a successful pilot programme, which identified alternative sources of energy to create a sustainable energy strategy. The strategy works to implement energy-efficiency applications and solar thermal systems in all public buildings, and contributes to a fiscal and legislative environment that encourages the private sector and the public at large to adopt similar sustainable energy approaches. This approach is helping to diversify Lebanon's energy sources, promote environmentally-sustainable renewable energy alternatives, lower demand on the national electricity provider *Electricité du Liban*, and ultimately provide cleaner and more affordable energy for Lebanon's citizens.