



### Progress Towards Environmental Sustainability

Since 1995 Rwanda has experienced massive refugee movements, with far reaching consequences. This has been exacerbated by the large internal displacement of people, resulting in increased vulnerability for sections of the population. The Government was forced to suspend its concern for the environment in the face of such urgent and pressing challenges. But more recently, it has stepped up its efforts in this field by developing a number of environmental strategies and action plans, notably, The National Environmental Action Plan. While the overall policy framework is improving and the concept of sustainable development is gaining ground, the environment continues to come under enormous pressure.

About 41% of the population has access to a safe water supply; however, this figure does not reflect important urban-rural disparities in the country. While 73% of the urban households have access to a safe water supply, only 16% of rural households have access to safe drinking water sources. In terms of sanitation, 53.6% of Rwandans use protected latrines, 39.5% unprotected latrines, 4.5% have no latrines, and only 1.2% have flush toilets. There has also been widespread development of slums in urban areas due to increased levels of rural-urban migration. Rwanda's rate of urbanization has increased rapidly from approximately 5% before 1994 to approximately 16% in 2002. Urban waste and sanitation have therefore been negatively affected due to pressure from a growing population resulting in poor waste management and increased water pollution.

Currently, over 96% of Rwandans depend on wood for domestic energy, leading to extensive deforestation. At the turn of the century, Rwanda's natural forests comprised 30% of the country's total land area. That figure presently stands at only 7%. Overall, Rwanda has been and continues to be caught in a vicious circle whereby increased pressure for land and fuel wood results in high levels of environmental degradation. The long-term losses caused by deforestation are therefore both high and seemingly irreversible.

In terms of raising public awareness, the Rwandan government continues to organize an annual "environment week". Numerous activities take place throughout the week, including radio and television broadcasts and special events and activities.<sup>1</sup>

## QUICK FACTS

### CURRENT PORTFOLIO BUDGET

<b>Total UNDP-GEF and Co-Finance:</b>	\$13,138,000
<b>Total MPU and Bilateral:</b>	\$138,758
<b>Total:</b>	\$13,276,758

**Cumulative Total ODS Phased-Out:** 3.3 ODP tonnes

## SPOTLIGHT

### Biogas Energy Conserves Fuelwood and Protects the Environment<sup>2</sup>

In Rwanda, the 1994 war and genocide resulted in severe overcrowding of prisons, holding over five times the number of prisoners originally planned, over 120,000 nationwide. The overpopulation led to unsustainable use of firewood for cooking and rendered toilet facilities inoperative, posing health risks to the prisoners, and to the general public, through air pollution, and contamination of soils and water.

Between 2001 and 2002, the Kigali Institute of Science, Technology and Management (KIST) successfully set up a pilot biogas project at Cyangugu Central Prison to address the problems of sanitation, alternative fuel for cooking purposes, and the possibility of recovering manure for production of food crops and woodlots. The Project was financed by the Ministry of Internal Security, and Penal Reform International, with contribution from KIST in the form of continuous research and development.

Through treating toilet wastes from the entire prison, 275 m<sup>3</sup> of biogas is generated daily for cooking purposes. As a result, biogas has reduced firewood demand in the prison by 50%; the bio-effluent is now safely applied on the farm, and the bucket system of evacuating toilet pits has stopped, as the wastes flow by gravity: from toilets to bio-digester, and from bio-digester to the farm.

To ensure the replication of this success, UNDP is supporting a KIST-implemented biogas project for Kigoma Prison, with funding from the Netherlands Embassy. In addition, the Ministry of Internal Security, in partnership with the Red Cross, has plans to provide three prisons per year with biogas systems. To date the project has trained a total of 150 artisans and technicians, out of which 3 private businesses have so far been established. In 2005 KIST won an international environmental award in recognition of its innovative work at Cyangugu Prison, the Ashden Award for Sustainable Energy.

The linkages between poverty and environment are very strong in Rwanda. One of the main environmental problems in the country is deforestation, which leads to important soil erosion that directly affects the poor who rely on subsistence agriculture and natural resources for their survival. UNDP in Rwanda is engaged in several initiatives in accordance with the Government's strategies to improve environmental sustainability and reduce poverty. These include: promoting alternative energy sources to replace the use of firewood, protecting the remaining natural forests by implementing better settlements for the returning refugees and capacity building for sustainable management of environmental and natural resources.

**Macharia Kamau, Resident Representative**

## PORTFOLIO

**FSSD\*** UNDP is supporting Rwanda to incorporate environmental considerations into its national poverty reduction strategies, in collaboration with UNEP, and is encouraging a decentralised approach to environmental management. In addition, the GEF-funded National Capacity Self-Assessment (NCSA) process allows Rwanda to ascertain current constraints to existing capacity, and outline specific action areas needed to meet its requirements under the three Rio conventions on Biodiversity, Climate Change and Desertification.

**ENERGY** UNDP is supporting Rwanda to adopt alternative energy, critical to reducing the high rate of deforestation in Rwanda. For example, the Arusha resettlement village in the Province of Gisenyi is equipped with a centralized solar battery charging-station that re-charges portable electric lights used by villagers. Thus solar electrification can be easily monitored and "handed off" to households. In addition, a regional Mini/Micro-hydro Capacity Development Initiative promotes decentralized rural electrification in Burundi, the Central African Republic, the Democratic Republic of Congo, and Rwanda through investments in micro-hydropower systems. UNOPS and UNDP are coordinating the project.

**BIODIVERSITY** To support national efforts towards biodiversity conservation in Rwanda, and meet its commitments to the Convention on Biological Diversity (CBD), UNDP supported the development of the GEF-funded Second National Report to the CBD. The report presented measures implemented by the country to conserve biodiversity within the framework of national priorities and CBD commitments and obligations. The process also provided an opportunity for an assessment of the physical, biological and socio-economical status of the environment, and the national political, institutional and judicial initiatives relevant to biodiversity conservation.

**CHEMICALS** The UNDP implemented project, part of the RMP for Rwanda, contributes to the country's compliance objectives under the Montreal Protocol. The initiative centres on the establishment of a CFC recycling and recovery centre. In addition to initial operational expenses for the centre, equipment, hands-on training and tools will also be provided. The quantity and quality of recycled CFC is measured by a developed monitoring system.



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### PARTNERS

**Some of our Partners working with UNDP and the Government in Rwanda**

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\*MDGR 2003 [http://www.undg.org/documents/3340-Rwanda\\_MDG\\_Report.pdf](http://www.undg.org/documents/3340-Rwanda_MDG_Report.pdf); UNDP Rwanda Project Brief; BBC News online, "Rwanda award for 'sewage' cooking"; 30 Jun 2005: <http://news.bbc.co.uk/2/hi/africa/4639363.stm>; The Ashden Awards: <http://www.ashdenawards.org/>; \*Frameworks and Strategies for Sustainable Development