

land, plant seedlings and take care of the young trees at several government-owned plantations. To extend the benefits of reforestation over as wide an area as possible, local farmers were also encouraged to grow trees on their own land and, as an incentive, were given tree seedlings and special training free of charge. They were provided with small loans and food rations until the trees were mature enough to be sold, and then marketing assistance was given in the form of 150 cooperatives to help sell the wood.

By the time the project was completed in 1997, nearly 18.8 million seedlings had been planted on over 5,900 ha of land, of which 3,500 ha were government owned and the rest in private hands. At full development, the plantations are expected to produce 130,000 cubic meters of wood a year. The tree nurseries are well established, and at completion had produced over 20 million seedlings.

The project began to benefit local people even before the trees were large enough to be transplanted. Many of the villagers have found employment through the project, and those who have planted trees on their own land will have a continuous supply of wood and other forest products to sell once the trees are large enough to harvest. The project's extension service has brought valuable information about new agricultural methods to many villages.

The project has also benefited the basic infrastructure of the region, as it involved building 38 km of rural and access roads as well as the rehabilitation or construction of services such as schools, dispensaries and community centers.

Today, 20 years after the project was started, groves of young trees grace what were once barren fields. Maize and other crops grow between the saplings, protected by their shade and mulched with their leaves.

By reversing environmental degradation, Benin's fuelwood development project has helped create conditions conducive to sustainable development and given thousands of people the means to improve their standards of living.

Funding sustainable energy

Energy is absolutely crucial for economic development and poverty reduction. It is no coincidence that the regions of the world with the highest consumption of energy are also the most prosperous ones. If people in developing countries, particularly the rural poor, do not get increased access to energy sources, many of these countries will never rise out of poverty. The challenge is to meet the demand for energy without causing damage to the environment, the atmosphere and to human health. The focus must be on 'sustainable energy,' which the UNDP defines as 'energy produced and used in ways that support human development over the long term in all its social, economic and environmental dimensions.'

The UNDP's Thematic Trust Fund on Energy for Sustainable Development, successor to the UNDP Energy Fund, supports sustainable energy in poor countries. Among many other activities, it operates an Energy Account that finances pre-investment surveys and small-scale projects in energy use, energy management, technical training and assistance, particularly in low-income countries. As one might expect, the countries that created the OPEC Fund appreciate more than most the importance of energy to the broader goals of development and poverty alleviation. The Fund has been an enthusiastic contributor to

A wind-powered rural electrification project in Morocco is one of several environmentally friendly initiatives sponsored by the OPEC Fund through the UNDP Energy Account.



the Energy Account since 1980, having co-financed no fewer than 25 projects and contributed a total of \$27.8 million.

The projects that have been supported over the years embrace a variety of energy types from biomass gasifiers to small scale hydropower stations, and a number of training courses and national and regional workshops have also been funded.

Some of the recent projects include one to help the central American country of Honduras create a national energy policy. Such a policy is a prerequisite for accelerated growth in this poor country, which still depends heavily on fuelwood and imported fossil fuels. This places a heavy

makes heavy use of fuelwood and coal for energy, and is suffering rapid deforestation.

Some of the earlier UNDP Energy Account projects that the OPEC Fund financed or cofinanced range from one in the Sudan to provide solar energy sources for lighting at community centers and mosques, solar evaporators for producing salt, solar pumps for drinking water and irrigation. A global wind pump evaluation program in the 1980s was financed to the tune of \$240,000.

The purpose was to evaluate the technical and economic potential of wind pumping for meeting rural water requirements in 13 developing countries. A

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The International Ocean Institute plays a vital role in conserving the ocean, one of humankind's greatest natural resources.

burden on the economy and results in environmental damage. The UNDP and the Honduran Ministry of Natural Resources and Development (SERNA) teamed up to strengthen the national energy framework and promote sustainable energy.

The OPEC Fund has supported another scheme, in Haiti, that also aims to help the energy sector promote environmentally sound sources and at the same time address the needs of the rural poor. Haiti is another country that

geothermal exploration project to investigate geothermal resources in Uganda was also supported, as was a project aiming to improve the efficiency of Syria's electric power plants, and to increase the capacity of the Syrian authorities to evaluate and implement energy conservation activities.

Managing the oceans

The oceans, seas, islands and coastal areas of the world are a vitally important part of the Earth's ecosystem and crucial to the pros-

perity and very survival of many parts of the developing world. About two-thirds of the world's population lives within 60 km of the coast, and many of the most important cities on Earth are situated on river estuaries near the sea. People depend on the sea for food, transport, employment and trade to name just a few things. Yet like most natural environments the sea's resources, both living and non-living, are finite and overuse or abuse of these resources is causing environmental damage in many parts of the globe.

In recognition of the importance of the oceans and coastal areas for global food security and economic prosperity, the OPEC Fund has supported an institution founded to promote the peaceful uses of the ocean and its resources. The International Ocean Institute (IOI) focuses on enhancing the ability of developing countries to develop and manage their marine resources sustainably and for their own benefit, of furthering education, training and research relating to the oceans. Based in Malta, the IOI was founded in 1972 as an independent, international non-governmental and non-profit organization that has assumed a leading role in advocating an integrated approach to conservation of the marine environment through cooperative ocean management and regulation. The IOI has more than 20 operational centers across the world, covering most major seas and oceans.

The IOI's work includes training programs, publications, research and conferences and seminars. The annual 10-week training courses on ocean governance are particularly successful, attracting delegates from all over the world, having been held for over 25 years. Since the late 1990s the OPEC Fund has provided several grants to enable participants from developing countries to attend the training programs.

Conservation congress

About 10% of the surface of the Earth is covered by national parks or protected areas, which indicates the importance accorded to land set aside for conservation. Marine and terrestrial reserves are home to millions of plant and animal species, and as such are genetic storehouses vital to ensuring species' future survival. These areas also play a vital role in regulating and buffering the Earth's natural processes to balance our climate. Besides their ecological importance, protected areas can play a large role in poverty alleviation in the developing countries. A World Parks Congress (WPC) is held every 10 years to set the agenda for the protected areas for the forthcoming decade, and in 2003 the Fifth World Parks Congress took place in Durban, South Africa. Member countries of West and Central Asia and North Africa (WESCANA) have formed a common platform for collective action in environmental conservation, and the OPEC Fund sponsored the attendance of delegates from poorer WESCANA countries at the congress. Organized by the World Conservation Union (IUCN), the conference was the first WPC to take place in Africa and it enjoyed the patronage of Her Majesty Queen Noor of Jordan and Nelson Mandela, former South African president. The theme was 'Benefits Beyond Boundaries,' and the focus was very much on removing the fences that have traditionally enclosed protected areas and often excluded local people. One of the recommendations of the congress was that people who live near protected areas must be consulted in the management of these areas, and that they should share in the economic benefits of such areas. During the congress, several new national parks were declared, including six protected areas covering 3.8 million hectares of land in the Amazon region of Brazil.