

BOOKS & PRODUCTS

More than 140 experts have been involved in preparing UNEP's newly published ***GEO Yearbook, 2006: An Overview of Our Changing Environment***. Its Feature Focus elaborates on the environmental, socio-economic and public health impacts of energy-related air pollution. Its chapter on Emerging Challenges identifies environmental effects and best practices related to fish and shellfish farming in marine ecosystems. And the GEO Indicators show that rising greenhouse gas emissions are resulting in ecosystem changes, and that increasingly intense exploitation of fisheries stocks is leading to serious depletion: but they also give ground for hope that action can bring positive results, as in the continuing decrease in consumption of chlorofluorocarbons, and the increasing proportion of the Earth's surface affording some form of environmental protection to biodiversity.



The ***UNEP 2005 Annual Report*** looks at the organization's work and achievements during the year. Under the headings 'Environment for a Secure Future' and 'Protecting Nature's Capital' it gives an overview of UNEP's contribution to sustainable development

in a year in which world leaders reaffirmed the centrality of environment for development and the Millennium Ecosystem Assessment revealed the extent of global environmental decline. It is available from www.earthprint.com.

The North-eastern Indian state of Assam is planning to establish **two one megawatt power stations** that run on **bamboo**. The giant grass – 80 million tons of which is grown in India each year – will first be turned into gas, and then used to generate electricity, in a process developed at the **Indian Institute of Science** in Bangalore. The \$2.2 million plants will initially provide power for local paper mills, but Vinay S. Oberoi, director of the **National Mission on Bamboo Applications**, says the technology could be widely used, including in "off-grid and remote locations." He adds: "We are confident the commercial success of gasification of bamboo for generation of electricity would help us solve the energy crisis facing India."

New York is building a fleet of 825 **hybrid buses**, in a move that will reduce pollution and save fuel in the city: 325 of the \$500,000 **Orion VII** buses, made by **Daimler Chrysler** have recently been delivered, with a further 500 due by the end of next year. Each bus has a diesel engine optimized to run at near-constant speed, which feeds power to an array of 46 batteries on



its roof, which in turn provide it with an extra boost for quick starts and hill climbs. Each one will save some 5,000 gallons of diesel a year, and when all are in service they will have the same effect as replacing 15,000 cars on the streets of the Big Apple with **Toyota Priuses**.

The first-ever synthesis of the status of renewable energy worldwide has been released by the **REN21 Renewable Energy Policy Network**, formed as a result of the Bonn Renewables 2004 Conference. The ***Renewables 2005 Global Status Report*** draws on some 250 published reference sources and has involved more than 100 researchers and contributors from at least 20 countries. Produced by the **Worldwatch Institute**, it provides an assessment of several renewable technologies — small hydro, modern biomass, wind, solar, geothermal, and biofuels — that are now competing with conventional fuels in power generation, hot water and space heating, transport fuels, and rural (off-grid) energy supplies.

A new UNEP publication, ***The Hydrogen Economy***, summarises in non-technical language the central issues and challenges in moving to a hydrogen-based energy economy — increasingly believed to be the future by policy-makers, environmental organizations, energy analysts and industry leaders — and assesses what the process might mean for the environment and policy-making. Produced by the **Energy Branch** of UNEP's **Division of Technology, Industry and Economics**, it is intended to support the discussions on energy at the **2006 Global Ministerial Environment Forum** meeting.