

## Training Workshop on Environmental Economics and Policy Analysis

The Harvard Institute for International Development (HIID) holds a five-weeks' intensive Training Workshop on Environmental Economics and Policy Analysis each summer at Harvard University, Cambridge, Massachusetts, USA. The primary goal of the Workshop is to train participants in the analysis, quantification, and economic valuation, of the environmental impact of policies, programmes, and projects. This year's Workshop will last from 21 June until 23 July.

Participants spend five weeks in an analytically rigorous, yet practical, Workshop, learning principles and policy-applications of environmental economics, and modern techniques of economic valuation of natural resources and the environment. Through lectures, case-studies, group discussions, and hands-on computer exercises, participants acquire the necessary skills for analysing, quantifying, and valuing, the environmental impacts of policies and projects. Particular attention is paid to integrating economic and environmental policies, and to devising innovative instruments for sustainable development and financing mechanisms for environmental investments.

### Topics covered include:

- Principles of Social Welfare Economics
- Optimization Over Time
- The Theory of Externalities
- The Theory of Property Rights and Rents
- The Economics of Pollution Control/Prevention
- Market-based Instruments
- Policy and Regulatory Instruments
- Community Management of Resources
- Environmental Valuation Methods
- Measurement of Environmental Damage
- Environmental Evaluation of Projects
- The Economics of Sustainability
- The Economics of Population Growth
- Structural Adjustment and the Environment
- Environmental Accounting
- Global Environmental Problems.

Case-studies and application topics typically include land tenure, water pricing, energy efficiency, industrial

pollution, urban congestion, pesticide management, ecotourism, fisheries management, forest concessions, watershed protection, financing of sustainable development, environmental taxation, structural adjustment, and trade liberalization.

The Workshop is designed to enhance the skills of mid-career development professionals who are interested or involved in natural resource management, environmental protection, and sustainable development. Participants will gain the tools that are necessary to evaluate, quantitatively, natural resources and the environment, and to formulate policies that will protect the environment without restricting economic growth. They should also acquire skills that are valuable for those working in government ministries, public enterprises, international organizations, private corporations, and nongovernmental organizations.

The Workshop is open to individuals holding a university degree in economics, agricultural economics, environmental science, forestry, engineering, mathematics, biology, ecology, or any field related to environmental economics. In order to follow the lectures, all participants must have an intermediate background in economics and some familiarity with quantitative methods.

HIID offers the Workshop as part of its Natural Resources and Environment Program, which includes teaching, research, and overseas technical assistance, in environmental management and sustainable development. The Workshop is partially funded by the Asia Bureau of the United States Agency for International Development (USAID) as part of a cooperative agreement with HIID. For further information please contact the undersigned.

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## Stockholm Environment Institute

The Stockholm Environment Institute (SEI) was established by the Swedish Parliament in 1989 as an independent foundation for the purpose of carrying out global environment and development research. The Institute is governed by an international Board whose members are drawn from developing and industrialized countries world-wide.

Central to the Institute's work have been activities surrounding the Rio UNCED, and, previous to that, the Brandt and Palme Commissions and the work of the World Commission for Environment and Development. Apart from its working linkages with the relevant specialized agencies of the UN system, a particular feature of SEI's work programme is the role it has played in the development and application of Agenda 21, the much-debated action plan for the next century.

A major aim of SEI's work is to bring together scientific research and policy development. The Institute applies

scientific and technical analyses in environment and development issues of regional and global importance. The impacts of different policies are assessed, providing insights into strategy options for socially responsible environmental management and economic and social development.

The results of the research are made available through publications, the organization of and participation in conferences, seminars and university courses, and also through the development of software packages for use in the exploration of scientific problems. SEI has also developed a specialized library which functions as a central catalyst in the short-term and long-term work of the Institute.

### Research Programme

A multidisciplinary rolling programme of research activities has been designed around the following main themes, which are being executed *via* internationally colla-

borative activities with similar institutions and agencies world-wide:

(1) *Environmental Resources*, including energy efficiency and global trends, energy, environment and development, and world water resources;

(2) *Environmental Technology*, including clean production and low waste, energy technology, environmental technology transfer, and agricultural biotechnology;

(3) *Environmental Impacts*, including environmentally-sound management of low-grade fuels, climate change and sustainable development, and coordinated abatement strategies for acidic depositions;

(4) *Environmental Policy and Management*, including urban environmental problems, sustainable environments, and common-property management; and

(5) *POLESTAR*, a comprehensive modelling and scenario-based activity, investigating the dynamics of a foreseeable world with 10 thousand million people by the middle of the next century.

#### Planning and Development Tools

SEI has developed a number of planning and development tools to explore environment and development options globally, regionally, and nationally — particularly in developing countries. These include an energy assessment, planning, and accounting, system linked to an environmental database (LEAP), and a water evaluation and assessment planning tool (WEAP). LEAP has been used in more than 50 countries and WEAP is in use in relation to the problems of the Aral Sea and for water planning purposes in Rajasthan, India.

In addition, SEI has developed a 'greenhouse' gas scenario system (G2S2). This gives current 'greenhouse' gas emission values by gas, sector, and all countries of the

world. It is being used by OECD, UNEP, and individual developing countries (currently Nigeria).

SEI has also developed an acidic depositions model to help the coordination of abatement strategies (CASM). This model makes use of European country energy predictions, fuel sulphur, and nitrogen, contents together with features of combustion and conversion to estimate emissions. Atmospheric transfer coefficients are used to estimate deposition. Critical-load maps and cost curves for optimized abatement have been generated with CASM. Based on critical acidic loads and relative sensitivity classes, sensitivity mapping of terrestrial Asia has also been carried out with this system.

#### SEI's Network

SEI has chosen a global network approach rather than a more traditional institutional set-up. The work programme is carried out by a world-wide network of about 60 full- or part-time and affiliated staff and consultants, who are linked with the SEI Head Office in Stockholm or the SEI Offices in Boston (USA), York (UK), and Tallinn (Estonia). SEI has developed a large mailing register to communicate to key members of society in government, industry, university, NGOs, and the media around the world. For further information contact the undersigned:

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### Richard Spruce (1817–93), Botanist and Explorer

The Linnean Society of London, England, UK, will be hosting a Commemorative Conference on the above during 20–22 September 1993 at the University of York, England, UK. Richard Spruce, one of the greatest of all Victorian naturalist-explorers, was born at Ganthorpe and died at Coneysthorpe, both on the Castle Howard estate, Yorkshire, England, UK. He spent 15 years of continuous botanical work in the Amazon valley and the Andes of Peru and Ecuador. The breadth of his interests, the detail and accuracy of his observations, and the meticulous recordings of all that he saw, were phenomenal.

Spruce's main studies ranged from bryophytes to trees, but little appears to have escaped his attention as he recorded the uses to which plants were put by the native tribes amongst whom he stayed, noted their customs and languages, sketched their villages, and mapped unexplored rivers. His major scientific works, *Palmae Amazonicae* and *Hepatics of Amazon and Andes*, were published in 1869 and 1884, respectively, and his journal was edited by A.R. Wallace and published in 1908 as *Notes of a Botanist on the Amazon and Andes*.

A varied and interesting conference programme has been arranged, including a public lecture by Professor

Ghillian T. Prance (Director of Kew Gardens) and a reception at York Museum, a remembrance service at Terrington where Spruce is buried, visits to Spruce's home and Castle Howard, a conference dinner and lectures, posters and exhibits on Richard Spruce's contribution to botanical science, and on Botanical exploration of South America in general.

Accommodation has been arranged at the University of York for the period 19–22 September. Early registration is advised. The registration fee is £30.00; the student fee is £10.00. Those wishing to participate (including presentation of a paper, poster, or exhibit) should apply for a registration form as soon as possible by contacting the undersigned:

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