

ESPA aims

This programme aims to:

- Create strong, international multi-disciplinary teams that can tackle the complex problems associated with the sustainable use of ecosystems
- Provide a better understanding of the types, value, and potential of ecosystems and the ways society uses them
- Strengthen the capacity of developing countries to perform research and act on the findings
- Influence national policy and find a way to integrate science into development planning
- Provide decision-makers in developing countries with recommendations on ways to achieve sustainable and fair use of ecosystem services that will help reduce poverty

Funding and support

Funding from: the Department for International Development, the Natural Environment Research Council, the Economic and Social Research Council.

Advice from: the Department for Environment, Food, and Rural Affairs.

The level of financial support for the main research programme is yet to be approved. An official launch of the programme is anticipated in early 2008.

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More information

www.nerc.ac.uk/research/programmes/espa



Understanding ecosystems, reducing poverty

**Ecosystems Services for Poverty
Alleviation programme**

Understanding ecosystems, reducing poverty

The link between ecosystems and poverty

Ecosystem loss and degradation is a major barrier to reducing poverty, hunger and disease. Balancing environmental sustainability with the need to build economies and reduce poverty is one of the greatest challenges facing society today.

Humans have made huge changes to ecosystems in recent decades to meet growing demands for food, fresh water and energy. These changes have improved the lives of billions of people, but at the same time have weakened nature's ability to deliver key environmental services, such as: purifying air and water; providing recreational opportunities, food, fuel and medicines; regulating the climate; and soil formation. These are just some examples of ecosystem services.

Many people in the poorest countries rely on ecosystem services for their livelihood, but these are already under pressure and are likely to degrade even further as changes in land use and climate continue.

Meeting the challenge

Using ecosystems sustainably and helping them to recover will only happen when people stop perceiving them as free and limitless. A challenge is to understand their full value. Tackling this problem requires:

- Environmental science to understand why ecosystems are becoming degraded and how to stabilise and reverse this trend;
- Ecological economics to place a better value on ecosystem services;
- Political economics to identify what institutional changes are needed so that the costs and benefits of improved ecosystem management is fairly distributed to the poor.



Ecosystems Services for Poverty Alleviation programme

Regional assessments

The first step is to find out what is happening in places that are facing major challenges to ecosystem services. These assessments will help to identify what decision-makers need to know in order to manage ecosystems effectively. Studies in the following regions will help to design a five-year research programme.

- **Africa** Millions of people living in dry areas are intensely vulnerable to the loss of ecosystem services, including water supply.
- **China** Dramatic progress has been made in reducing poverty but big problems remain; especially in the dry and fragile environments of the impoverished western region.
- **South Asia** Vital ecosystem services, such as agriculture and water supply, are increasingly vulnerable to the variability of seasonal monsoons.
- **Amazon/Andes** This region's forests have a role in regulating the global climate. A balance is needed between protecting these vital ecosystem services and the needs of an increasing regional population.
- **Marine environment** One billion people, primarily in developing countries, rely on fish for their primary source of animal protein; yet seventy percent of fish stocks are now fished to their limits or over-exploited.
- **Desakota environment** An Indonesian word meaning 'village-town.' An increasing number of people live in areas that are neither rural nor urban, which is changing the way ecosystem services are used. For example traditional rural communities can have direct access to water from wells or rivers, but in many desakota regions water companies supply this resource. This separation from the natural environment can result in desakota communities losing control of how their ecosystem services are managed.