A research programme co-funded by DFID, NERC & ESRC and accredited by LWEC

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Illustrating ESPA's Approach to Impact

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Evidence Challenges

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Original Research

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Working with Communities

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Listening

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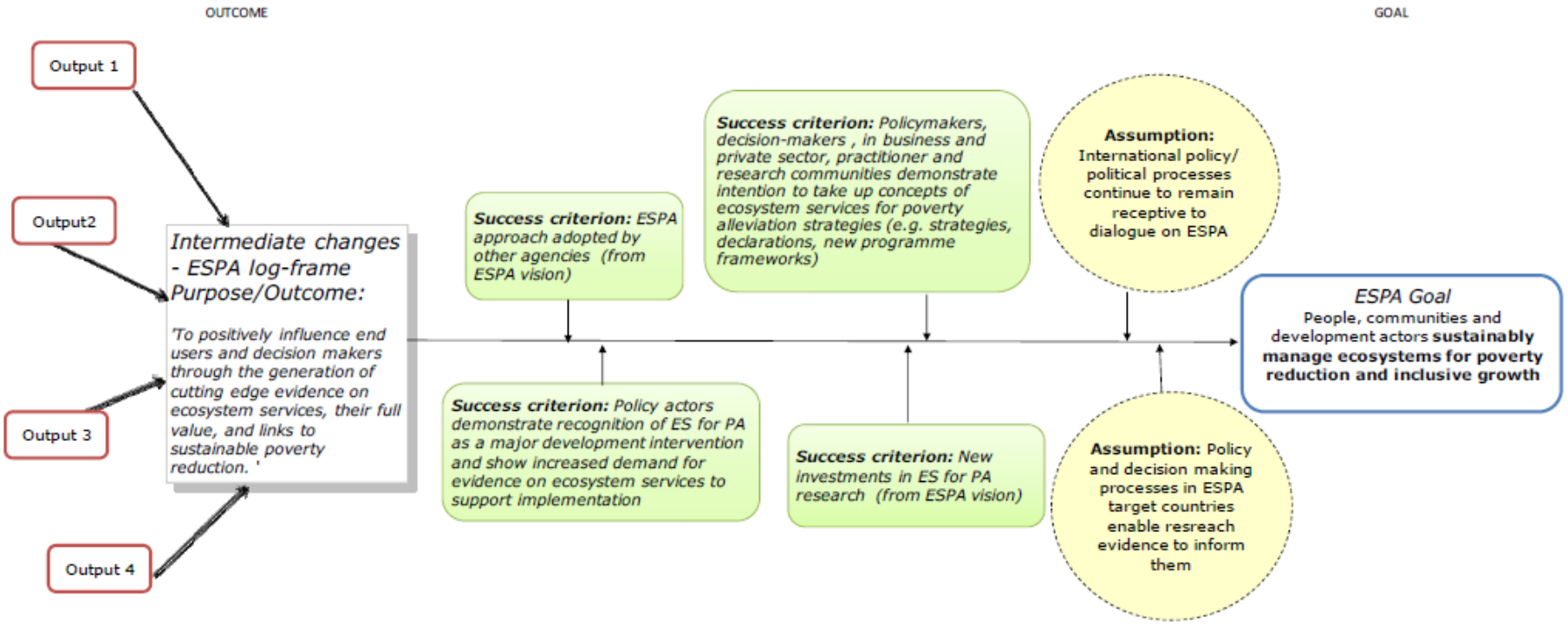
ESPA's Theory of Change….



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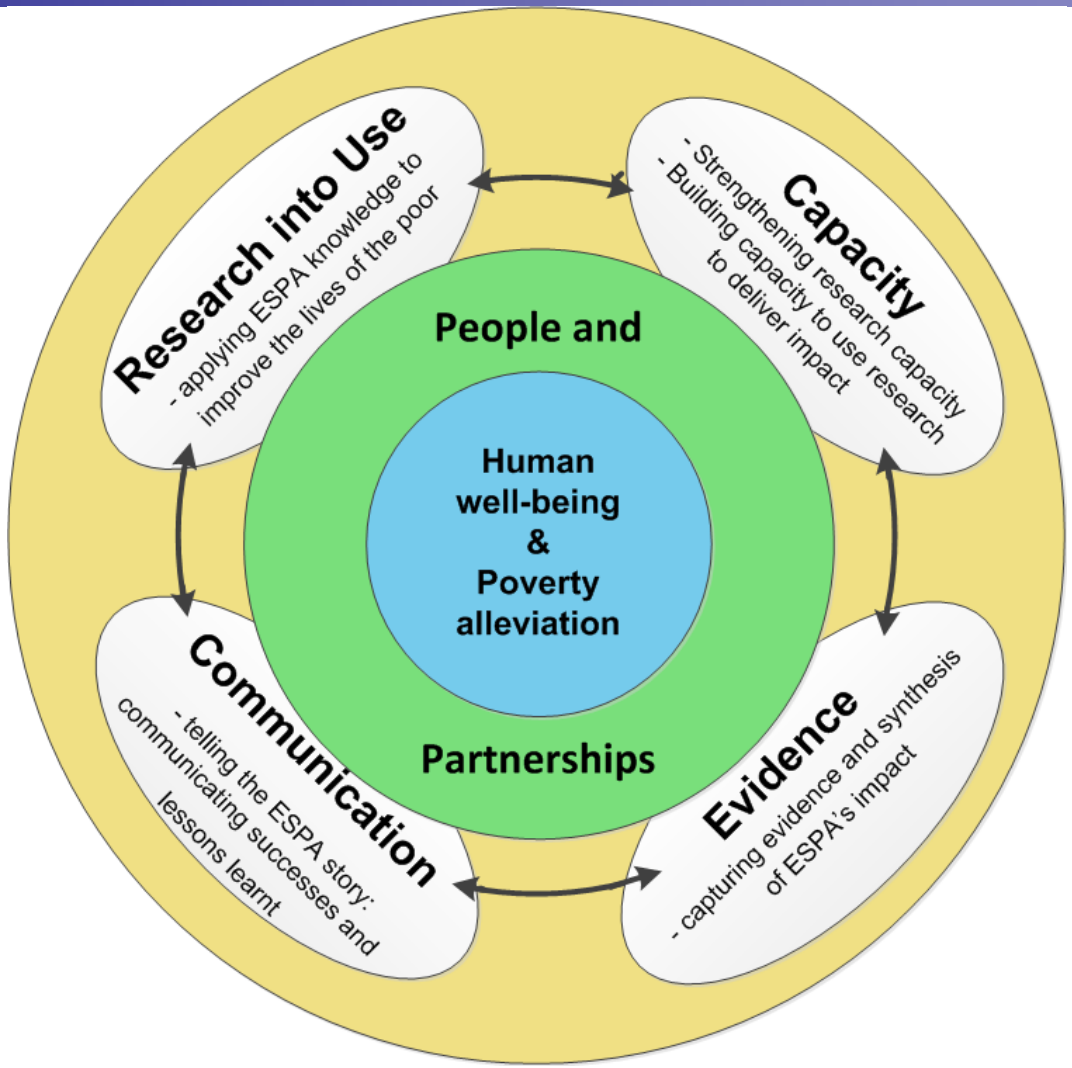

Research Excellence,
People *and*
Alleviating Poverty
are at the heart of everything that ESPA does.

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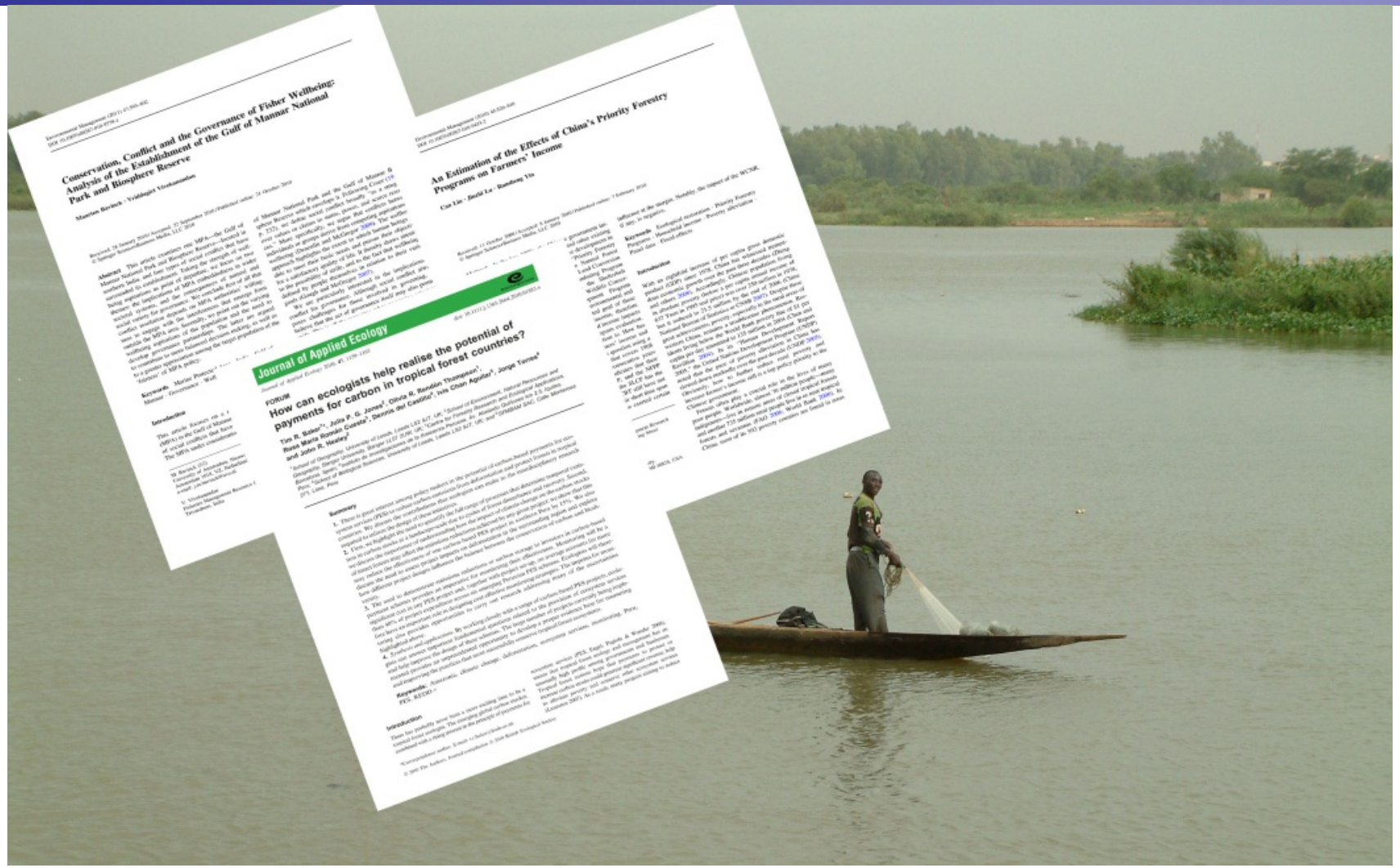
Generating Evidence



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The “ABC” of ESPA’s Impact

“A”

- Attribution to the research project

“B”

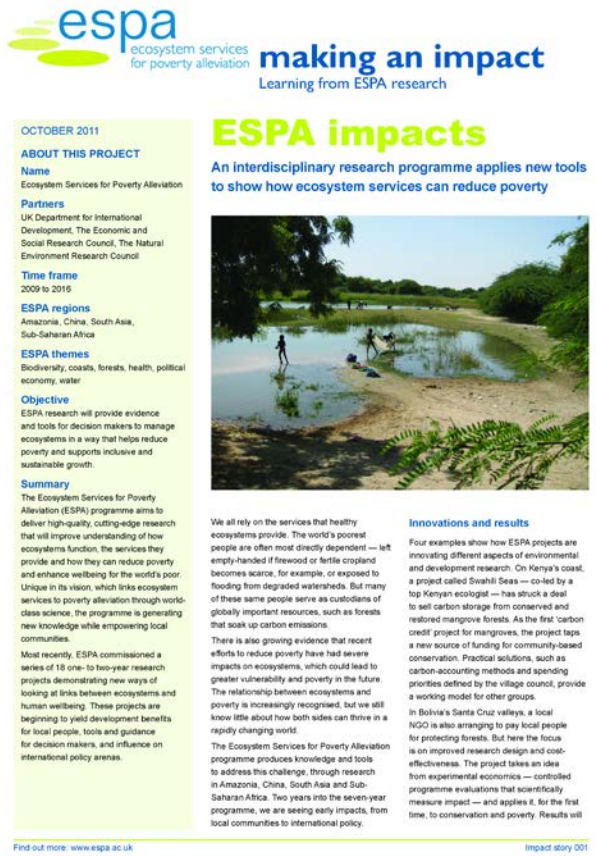
- Building communities for research and impact

3 “C”s

- Conceptualising impact
- Capturing impact
- Communicating impact

ESPA's making an Impact

http://www.espa.ac.uk/impact/making-impact



espa ecosystem services for poverty alleviation **making an impact**
Learning from ESPA research

OCTOBER 2011

ABOUT THIS PROJECT

Name
Ecosystem Services for Poverty Alleviation

Partners
UK Department for International Development, The Economic and Social Research Council, The Natural Environment Research Council

Time frame
2009 to 2016

ESPA regions
Amazonia, China, South Asia, Sub-Saharan Africa

ESPA themes
Biodiversity, coasts, forests, health, political economy, water

Objective
ESPA research will provide evidence and tools for decision makers to manage ecosystems in a way that helps reduce poverty and supports inclusive and sustainable growth.

Summary
The Ecosystem Services for Poverty Alleviation (ESPA) programme aims to deliver high-quality, cutting-edge research that will improve understanding of how ecosystems function, the services they provide and how they can reduce poverty and enhance wellbeing for the world's poor. Unique in its vision, which links ecosystem services to poverty alleviation through world-class science, the programme is generating new knowledge while empowering local communities.

Most recently, ESPA commissioned a series of 18 one- to two-year research projects demonstrating new ways of looking at links between ecosystems and human wellbeing. These projects are beginning to yield development benefits for local people, tools and guidance for decision makers, and influence on international policy arenas.

ESPA impacts

An interdisciplinary research programme applies new tools to show how ecosystem services can reduce poverty

We all rely on the services that healthy ecosystems provide. The world's poorest people are often most directly dependent — left empty-handed if firewood or fertile cropland becomes scarce, for example, or exposed to flooding from degraded watersheds. But many of these same people serve as custodians of globally important resources, such as forests that soak up carbon emissions.

There is also growing evidence that recent efforts to reduce poverty have had severe impacts on ecosystems, which could lead to greater vulnerability and poverty in the future. The relationship between ecosystems and poverty is increasingly recognised, but we still know little about how both sides can thrive in a rapidly changing world.

The Ecosystem Services for Poverty Alleviation programme produces knowledge and tools to address this challenge, through research in Amazonia, China, South Asia and Sub-Saharan Africa. Two years into the seven-year programme, we are seeing early impacts, from local communities to international policy.

Innovations and results

Four examples show how ESPA projects are innovating different aspects of environmental and development research. On Kenya's coast, a project called Swahili Seas — co-led by a top Kenyan ecologist — has struck a deal to sell carbon storage from conserved and restored mangrove forests. As the first 'carbon credit' project for mangroves, the project taps a new source of funding for community-based conservation. Practical solutions, such as carbon-accounting methods and spending priorities defined by the village council, provide a working model for other groups.

In Bolivia's Santa Cruz valleys, a local NGO is also arranging to pay local people for protecting forests. But here the focus is on improved research design and cost-effectiveness. The project takes an idea from experimental economics — controlled programme evaluations that scientifically measure impact — and applies it, for the first time, to conservation and poverty. Results will

Find out more: www.espa.ac.uk

Impact story 001

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Learning from ESPA research

OCTOBER 2011

ABOUT THIS PROJECT

Name
Swahili Seas

Principal investigator
Mark Huxham, Edinburgh Napier University

Partners
Kenya Marine and Fisheries Research Institute, Kenya Forest Service, Earthwatch Institute, Aviva, Edinburgh University, Bangor University, Birmingham University.

Time frame
January 2011 to December 2012

ESPA regions
Sub-Saharan Africa

ESPA themes
Coasts, forests

Objective
This project pioneers new ways of studying, evaluating and managing mangroves through a carbon credit project and assessment of Kenyan mangroves' economic value. The work will build local capacity for these activities and offer lessons to groups working in other ecosystems.

Summary
'Carbon credits' often reward industry or large landowners for reducing the global greenhouse gas load. Could such programmes be designed to help the rural poor preserve the ecosystems they rely on? Swahili Seas, the first carbon credit project for mangrove forest conservation, is demonstrating how to run such community-based schemes and channel funds back to an entire village, while meeting expectations of the international carbon market.

Innovative solutions from the Kenya-based project, such as a new carbon accounting scheme, may help similar initiatives spread through the developing world. For Kenyan policymakers, the research team has mapped out the potential value of mangroves across the country and is talking with officials about how the Swahili Seas approach could fit into the UN's REDD programme. An East African policy forum has been created to exchange information on related work across the region.

Mangroves to market

The first mangrove carbon credit project is assessing coastal forests' potential in new ways

Some of the poorest people on Earth rely on the mangrove forests that fringe the East African coast. Bridging sea and land, the trees provide storm protection and fish nurseries as well as terrestrial goods, such as firewood. And mangroves offer another service to the globe: even more than terrestrial forests, they fight climate change by sucking carbon out of the air and storing it safely underground. But 30–50 per cent of all mangroves have been cut down or burnt in the past half-century, placing them among the Earth's most threatened ecosystems. Considering the value of these coastal forests, it's one of the world's great market failures.

Swahili Seas — an ESPA-funded project — is working to counter this loss and help local people get the most out of mangroves. Centred in southern Kenya's Gazi Bay, researchers are exploring new ways to demonstrate the forests' worth and tap their carbon storage potential to benefit poor coastal communities.

Earlier work in Gazi Bay, led by Mark Huxham of Edinburgh Napier University and James Kairo of the Kenya Marine and Fisheries Research Institute, discovered how to restore cleared mangrove stands — even in areas where salty slumps have stood lifeless for 40 years. Now, the team is collaborating with an international 'carbon credit' scheme to sell the carbon storage created through mangrove reforestation and conservation.

Swahili Seas is the first mangrove carbon storage project to win international accreditation, based on the researchers' careful measurements of Kenyan carbon stocks. The ESPA-funded demonstration project, which launches in late 2011, employs Gazi residents and volunteers from international NGO Earthwatch to restore mangroves and prevent deforestation over 615 hectares of coastline. Income from carbon credits, worth US$15,000 each year, will fund continued conservation as well as village improvements chosen by the community. A

Find out more: www.espa.ac.uk/projects/ne-i003401-1

Impact story 004

espa ecosystem services for poverty alleviation **making an impact**
Learning from ESPA research

OCTOBER 2011

ABOUT THIS PROJECT

Name
What types of investment can most cost-effectively ensure ecosystem service provision? A randomised program evaluation

Principal investigator
Nigel Asquith, Fundación Natura Bolivia

Partners
Kelsey Jack, Sustainability Science Program, Harvard University; Sampumo Bruijnzeel, Vrije University Amsterdam

Time frame
July 2010 to June 2012

ESPA regions
Amazonia

ESPA themes
Biodiversity, forests, political economy, water

Objective
Using a controlled experimental design modelled on the natural sciences, this project is evaluating the impact of a payments for ecosystem services (PES) scheme on water quality, biodiversity, forest cover and the socioeconomic welfare of the poor in Bolivia's farming communities.

Summary
Despite the billions spent on programmes to conserve ecosystems and help poor communities, there is rarely good evidence that these projects have their intended impacts. In the Santa Cruz valleys of Bolivia, a unique large-scale experiment is underway, testing a forest conservation scheme across 130 villages — divided randomly into groups who do or do not receive payments for protecting forested watersheds. The experiment will show whether conditional in-kind payments for conservation actually lead to environmental and economic improvements, and will shed new light on the relationship between poverty and ecosystem service provision.

The results will provide useful feedback for NGOs and governments rolling out similar schemes elsewhere. And it is hoped that the project's scientific approach will serve as a model for other action-research groups.

Do ecosystem conservation projects work?

How can NGOs and donors measure the impact of work on forest conservation and poverty?

Imagine running an pharmaceutical trial in which you take a patient suffering from a fever and give them an aspirin. If the patient gets better, you'll conclude the aspirin worked. If the patient's condition worsens or becomes fatal, you'll conclude the aspirin was not the best treatment. Of course, the patient might have improved without the drug, and if their condition had worsened you wouldn't know if the aspirin had slowed the decline — that's why real drug trials enrol many patients and use control groups. But you have an ailing patient, and you think a pill should help. It simply seems wrong not to try.

Most monitoring and evaluation of conservation programmes takes an analogous approach, argues Nigel Asquith — especially when the aim is to protect ecological resources for the benefit of the poor. Asquith, a conservation policy researcher at the Bolivian NGO Natura Bolivia, is leading a project to introduce more rigour to the field.

For the past two years, Natura Bolivia and colleagues from Harvard University and Vrije University Amsterdam have been preparing large-scale, controlled tests of a programme that compensates local people for conserving forests in south-eastern Bolivia.

With funds from the European Union and other donors, Natura Bolivia has successfully piloted reciprocal watershed agreements — small-scale, locally-managed payments for ecosystem services (PES) initiatives — since 2003. The NGO has worked with local governments and water cooperatives to explain to communities that cattle-grazing in forests along streams contaminates water supplies and exacerbates droughts for downstream farmers. Water users and providers then negotiate in-kind payments — such as beehives — so that landowners can preserve the upstream wooded watersheds while gaining steady income from them.

The Natura-led initiatives have grown from 1,235 protected acres to 22,000 acres in 2010. In 2007, a new 1.8-million-acre protected area was created to conserve the forested headwaters of the Santa Cruz valleys, providing an opportunity for villagers within the protected area to adopt their own watershed agreements.

Find out more: www.espa.ac.uk/projects/ne-i00436x-1

Impact story 003

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Questions for our Researchers

- ***Who*** will use your research?
  - Who are the intended ultimate beneficiaries?
- ***How*** will your research be used?
  - How will the lives of poor people be changed by your research being put into use?
- ***What*** will your project do to ensure that that this happens?
  - What needs to be done to track the development impact of your work?