Reflect & act

Food and agriculture

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OVERVIEW

Natural Resources Group

Project name:
Smallholder Innovation for Resilience: Strengthening biocultural innovation systems for food security in the face of climate change (SIFOR)

Project leader:
Krystyna Swiderska

Time frame:
August 2012 – present

Objective:
Through participatory action-research, SIFOR is identifying biocultural innovations that enhance the productivity and resilience of smallholders in the face of climate change, and aims to inform local, national and global policy.

PROJECT SUMMARY

As part of SIFOR, two week-long workshops brought participants together from Peru, Kenya, India and China to develop a common methodology for research on biocultural innovation, so that this new five-year project can produce the rigorous and comparable findings needed to influence policy debates. In October 2012, an inception workshop in China explored how to link the notions of 'tradition' and 'innovation'. And a methodological workshop in Peru in April–May 2013 allowed participants to share results of a qualitative baseline survey, develop a common approach to a quantitative survey and reach a common definition of 'biocultural heritage innovations'.

CHANGE IN ACTION

South-South knowledge sharing through SIFOR has provoked several changes in behaviour. Kenyan partners were excited by China's work on participatory plant breeding (PPB), leading to a joint proposal to bring PPB to coastal Kenya. China's breeders and social scientists also strengthened their relationship, developing a plan to expand PPB throughout the southwest of their country. Breeders began to rethink the use of

Biocultural innovations: a holistic approach

Knowledge exchange provokes developments in practice and lays groundwork for shifts in agriculture policy

Unsupportive policies, institutions and markets are weakening the crop diversity and innovation systems that smallholder farmers rely on for food security in a changing climate. Smallholder Innovation for Resilience (SIFOR) is enabling farmers in China, India, Kenya and Peru to strengthen innovation systems based on traditional knowledge and biocultural heritage. SIFOR is breaking down conventional barriers between farmers, breeders, scientists and policymakers.

SIFOR builds on the success of previous IIED projects. Since 2000, IIED has worked with Peruvian NGO Association ANDES, to build a successful community-managed 'Potato Park' in the sacred valley of the Incas. In 2004, we helped broker an unprecedented agreement that saw the International Potato Center return native potato varieties collected from the six Quechua communities during the 1950s and 1960s.

As a result, the Potato Park has increased its collection of native varieties by 234 per cent, to more than 1,460 different varieties. Founded under customary laws that link domesticated, wild and spiritual communities, the park has introduced several biocultural innovations that have strengthened biodiversity conservation, cultural identity and livelihoods.

Since 2004, IIED has also worked with partners in Peru, China, India and Kenya to strengthen traditional farming systems and farmers' rights in areas of important crop diversity.

South-South exchanges

Knowledge sharing through SIFOR has provoked several changes in attitude. In October 2012, at the inception workshop in China, Kenyan, Indian and Peruvian participants were excited to learn about China's work on participatory plant breeding (PPB). At a methodology workshop in Cusco, Peru held in April–May 2013, China's national Institute of Crop Sciences (ICS) committed to helping Kenyan partners introduce PPB.

The Peru workshop was instrumental in strengthening relationships among Chinese participants, particularly the ICS and IIED's partner, the Centre for Chinese Agricultural Policy (CCAP). Although CCAP has done much work to link national and provincial gene banks in China with local farmers, it was still a giant break from convention for Chinese breeders to attend a participatory workshop with indigenous farmers. Indeed, exposure to the achievements of the Quechua communities in the Potato Park ultimately led to a joint ICS-CCAP proposal to expand PPB from two to five provinces in southwest China, and to collaborate with local farmers on a much bigger scale.

A field visit to the Potato Park, along with presentations from Quechua farmers on protecting farmers' rights and crop diversity, sparked debate on the use of hybrids in China. The Chinese breeders who promote hybrids realised that genetic diversity is needed to provide more options for both farmers and breeders.

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hybrids, which are eroding diverse traditional varieties. Field visits to the Potato Park in Peru enabled the Indian delegation to assess the potential for establishing a rice park in the Himalayas.

The project also laid the foundation for informing policy. The capacity to produce scientifically rigorous and comparable data will make it easier to influence national and international policy debates, as will the participants' common definition of 'biocultural heritage innovation'. Inviting policymakers into the field expanded their appreciation of farmers' role in safeguarding traditional varieties and shed light on how to inform the policymaking process.

KEY LESSONS LEARNT & INNOVATIONS

- South-South exchanges and visits to progressive initiatives can build capacity to address complex challenges, generate new knowledge and ideas from different contexts, and enable the spread of successful approaches.
- Bringing formal mainstream actors into a field setting can be eye-opening. Policymakers and scientists can see first-hand that farmers are effective researchers and natural resource managers, and also share their insights into technical issues and policy processes.

PARTNERS' VIEW

SIFOR is particularly valuable and crucial to empower (people's) traditional resilience innovation systems, and enhance their recognition by the formal science system.

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Photo: **Yiching Song**

Kenyan, Indian and Peruvian partners were excited to learn about China's work on participatory plant breeding.

The Indian delegation better understood the potential for establishing a rice park in the Himalayas, having seen the Potato Park first hand. Members of NGO Lok Chetna Manch were impressed by how Quechua communities generate revenue through crafts and textiles, herbal teas, personal care products and low-impact tourism. Taking a page from the Peru workshop, they brought farmers side-by-side with plant breeders at a follow up event in India held in July 2013. It was the first time that local farmers had heard scientists value their knowledge.

In addition, by showcasing the role of Quechua farmers in research design, data collection, analysis and communication, the host delegation reinforced the fact that farmers can work effectively as co-researchers, and the importance of this approach for empowering farmers. Innovations such as the use of mobile communications and videos can overcome any literacy obstacles in data collection.

Influencing policy

The project laid the groundwork for influencing policy in several ways.

- The capacity to produce scientifically rigorous and comparable data through the baseline study will make it easier for all four countries and IIED to inform and influence policy effectively, both nationally and internationally.
- Participants developed a common definition of 'biocultural heritage innovation' that can help inform policy debates on how to protect traditional knowledge and innovations. To that end, SIFOR could also promote a new policy tool — a proposed system of Biocultural Heritage Indications that emerged from a study of the Potato Park's experience with a collective trademark.
- Bringing policymakers into the field expanded their appreciation of the critical role of farmers and landscapes in safeguarding crop diversity for adaptation to climate change, and shed light on how to inform the policymaking process. The UN Food and Agriculture Organization, for example, encouraged participants to feed into its State of the World reports on plant genetic resources and agricultural biodiversity. Because governments have limited time and funding for comprehensive studies, SIFOR's locally specific findings could provide valuable data for national reports.
- Presentations by policymakers and experts at the China and Peru workshops enhanced understanding of the International Union for the Protection of New Varieties of Plants, and relevant policies of the World Trade Organization and the World Intellectual Property Organization. Contributions from an expert in traditional knowledge protection were instrumental in defining 'biocultural heritage innovation'. This led to a discussion of how to take forward the proposal for an alternative system of Biocultural Heritage Indications and test this idea in the context of the SIFOR project. Finally, the two workshops created a strong IIED-South-South alliance for joint efforts and collaboration for enhanced policy influence.