2004 - 2006 Research Highlights

Natural Resources Systems Programme

Poverty reduction through partnerships in natural resources research

Contents

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NRSP Research Highlights

Poverty reduction through partnerships in natural resources research

The Department for International Development (DFID) is the British Government department responsible for promoting development and the reduction of poverty. The central focus is a commitment to the internationally agreed target to halve the proportion of people living in extreme poverty by 2015. To contribute to achieving this objective, DFID funded ten programmes that covered various aspects of natural resources research. One of these programmes was the Natural Resources Systems Programme (NRSP).

NRSP was planned as a ten-year programme, 1995 to 2005, and then, in common with DFID's other research programmes, was extended by one year to March 2006. This publication – the seventh NRSP Research Highlights – covers the programme's final two years, 2004-2006.

In its initial four years, NRSP focused on sustainable ways to improve agricultural productivity in six production systems and the research mainly pursued technical solutions. Then, in 1999, the programme was re-oriented to address the sustainable management of natural resources (NRM) with a central emphasis on the ways by which improved NRM could meet the needs of poor people and benefit their livelihoods. This change in research emphasis was a response to the Government's White Paper on International Development ('Eliminating World Poverty: A challenge for the 21st Century') in November 1997. Thus, since 1999, NRSP has aimed to deliver new knowledge that can enable poor people, who are largely dependent on natural resources, to improve their livelihoods. The new knowledge centres on changes in the management of natural resources that can assist the improvement of poor people's assets and enable them to move out of poverty in enduring ways. Assets encompass not only individual and household gains, such as human skills and knowledge, financial capital and other stores of value, but also social capital as a means for poor people, through their own community-based support networks, to have a stronger voice and more assured involvement in the decision-making processes and policies that affect their livelihoods.

This final Highlights edition provides five examples of what such NRM research contains – what it 'looks' like. Projects demonstrate that achieving pro-poor developmental change is complex requiring multi-faceted, pluralistic research. Importantly, they also show that research can succeed and deliver methods and insights that are highly relevant to pro-poor improvement of livelihoods as well as good management of the NR-base.

This edition also includes one article on promoting the wider uptake of research products and one on changing researchers' attitudes to undertaking promotional work. These articles reflect NRSP's recognition of the importance of uptake promotion as an integral part of development-oriented research and the increased emphasis that the programme has placed on uptake promotion during its last four years. Both illustrate how NRSP endeavoured to achieve wider uptake of research findings and products – geographically and institutionally – as the best means of enabling wider livelihoods impact after the programme ended.

Finally we feature two main ways in which NRSP has left a footprint. We provide examples of impact; examples of how NRSP's research has contributed to improving poor people's livelihoods with indications that such changes can be sustained. And we report on the NRSP website that will continue to be available after NRSP's closure as a resource to support pro-poor NRM research and development efforts in the future.

A complete list of the 36 projects that were undertaken and concluded during 2004-2006 is provided at the end of this publication. In common with earlier years, NRSP's projects were implemented as contracted projects undertaken by government, non-government and private organisations with expertise in natural resources management. Often these different types of organisations worked in partnership, each contributing their differing expertise and experience towards attaining a project's aim.

Five projects in the portfolio were cross-cutting studies that synthesised key research findings on five topics. The Briefs that were developed as a product of these studies are featured in this publication (p34). Of the remaining 31 projects, 19 projects built on the outputs of previous projects and 12 projects focused specifically on promoting the uptake of products of earlier research.

Ownership of research is a considerable asset to uptake promotion. During the life of the programme, the extent of southern research leadership, as well as partnership, that was in place for the portfolio provided major support to national and regional promotion of NRSP's findings and knowledge-sharing products. In the programme's final two years, 15 projects were led by organisations of the countries where the research was conducted and nearly all other projects had substantial inputs from in-country teams.

Here is a brief resumé of projects featured in our final Highlights edition.

Why is youth so invisible? (p3). Young people make up some 35 percent of the population in Kenya and Uganda and a common view point is 'Youth are our future'. So why, is youth so invisible when it comes to policy and investment that concern natural resources? This article suggests that youth are major stakeholders in using natural resources for their livelihoods. But their role must be better understood if they are to have adequate opportunities to build sustainable livelihoods on their own terms.

Do communities really need 'saving from themselves'? (p6) Environmental policies in many developing countries are rarely evidence-based. Policies tend to focus on excluding people from environmentally sensitive areas or assume that people will need educating in conservation. The tone is one of 'saving communities from themselves'. Research in Ghana is challenging these entrenched views. It focuses on local-level democracy and helping resource users to better manage information so that environmental decision-making is much more responsive to their needs.

Creating a community of champions (p9) Researchers in eastern and central Africa suggest that a radical change in the culture of research organisations is needed to get more research into practice. A 'community of champions' was created to promote research uptake using a regional soil and water management network. Communication plans and uptake promotion strategies are now high priority criteria for appraising, monitoring, and evaluating research projects.

It's business enterprise not charity (p12) addresses the plight of many of India's rural poor, who often have limited access to natural resources and to rural services that could help them. Research in eastern India developed a robust, self-financing method for motivating them to achieve positive livelihood outcomes and saw the emergence of service providers within the community able to facilitate access to credit, inputs and other needed services.

Scaling-up the good bits (p20) describes how researchers promoted tried and tested process tools that they had developed to improve aquaculture policy and services for poor, rural communities in eastern India so that other aquatic resource users in the Asia-Pacific region could benefit. Well established local and international networks and the Internet proved to be invaluable assets.

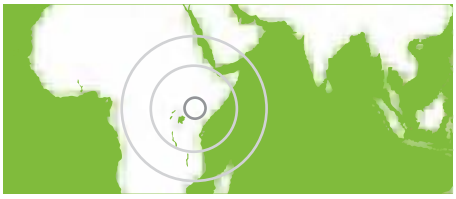
Ways of getting things done (p23) The floodplains of Bangladesh support the livelihoods of millions of poor people but they are difficult to mange in an equitable and sustainable manner. Research suggests that supporting existing institutions – formal and informal – can be key to ensuring sustainable benefits for the poor. But a more adaptive approach is needed to find institutional arrangements that work.

Linking research, policy and livelihoods (p26) Researchers recognise the importance of influencing policy to improve the livelihoods of the rural and urban poor but often do not include crucial elements of the policy process – power and politics – in their investigations. A review of 35 NRSP research projects suggests some useful ways by which this weakness can be corrected.

Making a difference (p29) Donors often ask – 'Did your research achieve impact?' 'Did it benefit the livelihoods of poor people?' Similarly, policy-makers may ask – 'Can use of research findings make a difference?' 'Can adopting your recommendations really improve the livelihoods of large numbers of poor people?' This article shows some of the ways in which NRSP measured up to these questions.

Why is youth so invisible?

The role of youth in natural resources development in Kenya and Uganda



Over 25 percent of the world's population – some 1.7 billion people – are between the ages 10 and 24. In Kenya and Uganda it is 35 percent. Many are born into poor rural families who rely on natural resources (NR) for their livelihoods. 'Youth are our future' is a popularly held viewpoint. So why is youth so 'invisible'? Why is there not greater investment in understanding their role in realising our aspirations for tomorrow? This research suggests that youth are major stakeholders in using NR for livelihood activities. Their role must be better understood if they are to have adequate opportunities to build livelihoods on their own terms.

'Youth are our future' is a well-meaning phrase but the adult world usually interprets this as support for vulnerable young people. It focuses on areas of public policy concern such as the lives of street children, juvenile delinquents, youth combatants, and school drop-outs. Little is known of the vast majority of the 1.7 billion young people who live in rural poverty and whose lives will never make the headlines.

Rural Youth Livelihoods Project

Kenya and Uganda are typical of many developing countries where the rural youth population is growing. Their interests and needs are not well understood as they begin to formulate their livelihood strategies, particularly their access to local natural resources. This gap in understanding is now seen as a constraint to developing suitable policies and services to support them. Indeed, failure to consider youth in NR policy and practice is likely to result in continued cycles of rural poverty.

The Rural Youth Livelihoods Project was set up to address this gap. Its aim was to support the efforts of rural youth by providing policy-makers, development practitioners and educators with a clearer picture of the role of NR in their lives and livelihoods strategies.

Researching youth

Evidence was gathered from young people about their interests and their livelihoods. Visits were made to field-based organisations in both countries to see how the interests of young people were reflected in rural development projects. In Uganda a year-long programme investigated the work of youth groups in Soroti and Tororo Districts using focus group discussions and interviews with individuals. Reflective journals were used to capture the uncertain twists and turns of the formative processes of livelihoods development over time. A self-administered photographic survey also identified the use of assets and resources of particular importance to young people. Towards the end of the project a formal questionnaire survey gathered information from 180 youth across three districts in Uganda and 120 youth in two districts in Kenya. The survey was stratified on the basis of school attendance (primary school, secondary school and school leaver).

Visits were also made to a range of government organisations in both countries to review the extent to which the interests of youth were 'visible' in current rural and related cross-cutting development policies and strategies.

It is now time to mainstream youth in NR-related development policies

Challenging the 'received wisdom'

The 'received wisdom' in Kenya and Uganda, is that young people are not interested in deriving a livelihood from natural resources. This is also embedded in local policies and institutions. Yet the field data from this project challenged this wisdom. For the vast majority of rural youth using NR was a key feature in their formative lives and livelihoods, although the dependency on them did vary considerably from one person to another. Some engaged extensively in arable, horticultural and livestock production but for others it was little more than keeping a few chickens, or growing some vegetables to meet immediate social expenses. Income from NR was also used in a variety of strategic and long-term ways such as meeting school expenses, gaining income for further investment in NR, or accumulating investment capital for other income-earning activities.

For many a broad and varied income-earning portfolio was essential. Youth from poor families could not rely on farming as their sole source of income as this required access to land or money to rent land and this was not usually available to them. So 'mixing and matching' farming with other income earning activities was common among both young men and women. An acknowledged comparative advantage of young people was their strength and stamina, a characteristic they exploited to generate income by labouring for other people e.g. land preparation, carrying goods to market. Common pool resources also provided opportunities, especially for young men, to work independently or in groups to dig sand, make bricks or produce charcoal.

Natural resources were important because of their immediate practical use, their long term strategic value and the rich portfolio of opportunities they offered. The range of available arable and horticultural crops provided opportunities to work on the family farm while meeting the demands of the school year; harvesting and processing from common pool resources met the needs of those with little or no capital; and chickens and small stock rearing provided self-reproducing capital for those wishing to accumulate assets.

Young people also had needs by virtue of their situation – growing up but not yet adult. Their livelihood portfolios varied from season to season; they were opportunist and often short-term as they tried to manipulate their activities to meet rapidly changing needs. They were not marked by consistent attempts to accumulate financial capital or other assets. Rather, there was considerable adjustment to accommodate changing circumstances, events and interests – a new school, Christmas, a bicycle. The income earned may, to an adult, seem of little consequence. But if it was enough to buy those schoolbooks, that new dress or this bicycle, then it was significant from the perspective of a young person.

The research also suggested that over time, youth livelihood strategies do become more focused and the number of activities undertaken accordingly reduces. As formative livelihoods take shape, activities such as charcoal production and brick-making decline and in their place they move towards activities based on more sustained use of natural resources and land management.

'Invisible' in rural development policy

Youth were only occasionally 'visible' in NR-related policy documents. Most commonly, their particular interests and concerns were subsumed within the broader category of 'disadvantaged groups' or 'women'. When youth was mentioned, they were often portrayed at one and the same time as victims – chronically poor, economically at risk, socially vulnerable – and villains – seeking urban life styles and livelihoods rather those of farming or related agri-business, environmental vandals, criminals, and worse. Such images associate all young people with problems and crises. They emphasise youth dependence on the adult world and detract from youth as rural constituents in their own right. The mis-match between youth activities and aspirations as found in the field studies, and youth as presented and dealt with in policy, pointed up the problem. Policy does not address the particular needs and interests of rural youth because those working on it do not understand what young people do, especially their involvement in NR management, and more generally in the rural economy.

Rethinking youth

The challenge facing development workers is to recognise the qualities of 'youthhood' and to meet the needs of young people as they move toward adulthood. Rural development agencies have been slow to realise this and the potential of building partnerships with young people. Rural service providers need to put aside their fixed and predominately negative views on youth and adopt a more open and inclusive dialogue with young people about their livelihood strategies. It means recognising that young people already make a considerable contribution to rural life. The challenge is to find ways to facilitate the 'inter-generational exchange' that lies at the heart of sustainability.

In sum, it is now time to mainstream youth in NR-related development policies. This will not be an easy task but it has the potential to provide sustained benefits for young and old alike and to make an appreciable contribution to achieving goals for sustainable management of natural resources on which so many livelihoods depend.

R8211 Understanding and enhancing youth livelihoods in rural East Africa

Paul's story

Paul lives comfortably in a mud-brick house with a tin roof in Uganda. He owns 1.5 ha of land and grows coffee, maize and bananas. But in 1986 he left primary school before graduating. He had no land because his father had sold it to buy a new sewing machine in an unsuccessful attempt to revive his faltering tailoring business.

Paul's first enterprise was brewing local beer using bananas he bought from money earned as a farm labourer. He used his savings from brewing to hire 0.75 ha of land to grow maize and beans. Following a successful maize harvest, he bought a second-hand bicycle and used it to carry firewood to the nearest town. In 1992, he joined a rotating savings and credit scheme with some friends. This only lasted eight months, but it was long enough for Paul to receive a payout. With this he went to Kampala, and bought second-hand clothes, which he took back and sold in his local village market. He earned enough to start trading in coffee by agreeing prices with farmers when the beans were still growing. Paul has continued to expand his farming activities growing cabbages and tomatoes, at times renting more land to expand production.

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Do communities really need 'saving from themselves'?

Helping local resource users in Ghana to influence environmental decision-making

Environmental policies in most developing countries are rarely evidence-based. Rather they are influenced by assumptions such as natural environments are fragile and need protecting, the rural poor exploit and destroy natural resources using inappropriate technologies, and change is synonymous with crisis and irreversible degradation. Policies tend to focus on excluding people from environmentally sensitive areas or telling them about ways of controlling natural resources and preventing degradation. The tone is one of 'saving communities from themselves'. But recent research in Ghana, where the government is pursuing a policy of decentralisation, is challenging these entrenched views. It focuses on local-level democracy and helping resource users to better manage information so that environmental decision-making is much more responsive to their needs.

In Ghana...

Despite the process of local government decentralisation, very pessimistic trends in the environment and its alleged destruction by local resource users are still widely held opinions and these are reinforced by a strong notion of 'blame'. This was particularly true of two Districts in Brong Ahafo Region where poor rural communities were thought to be 'ill-equipped to manage their resources and what they needed was external and local elites to intervene on their behalf'.

In theory, decentralisation should help to empower local resource users to bring about a change in such attitudes. The various units which make up the system – elected district, sub-district and local representatives, district level departments that report to them, and the regional council providing capacity building and governance controls – come together to provide what is in essence a sound framework for the devolution of power. But in practice this framework has no real means of delivering accountability down the administrative system. Top-down planning still predominates with little attempt to create transparent planning processes. There is little demand for feedback and local government still responds mainly to the interests and agendas of national elites and central government.

It is against this background that researchers sought to better understand environmental policy processes, develop innovative methods that could help to empower local communities to champion their interests within this decentralised management structure, and so begin to challenge the conventional wisdom.

The main objectives of the project were to devise a publicly accessible information system for natural resources management to support planning that would draw on local evidence from the district; build networks of resource users who would analyse their situation and develop a programme of concerns and demands that could be put forward to policy-makers; and produce advocates who would be able to influence policy-makers.

Research is challenging these entrenched views so that environmental decision-making is much more responsive to the needs of resource users

Information for decision-making

Information is fundamental to sound natural resources management and the development of effective local-level democracy. But information for policy-making differs fundamentally from information for research. While research is able to use case studies that can be scaled-up and tested, administrative decision-making is based on comprehensive data on the whole area under a given policy domain. Establishing such a database was impracticable within the resources of this project and so researchers focused on developing an institutionalised process of collecting, analysing and updating information for policy-making rather than just assembling data according to a set methodology. A two-way flow of knowledge was envisaged – information from producer networks can be put to policy-makers, and policy-makers communicate their information to citizens.

Work began with general social surveys on the conditions of agriculture and charcoal burning, the main sources of income in the area. The survey eventually covered 84 remote communities in two Districts and has heightened awareness at the District level of the importance of information in decision-making. A GIS database was created together with district maps and an agreement that the District Assembly would take over and manage the database. The District Assembly also expressed interest in extending the area covered using its own resources.

Charcoal and yam producer networks

Building users networks can help to put demands on policy-makers. They can bring rural producers together to reflect on their situation and promote community-level environmental interests to counter the dominant views of local and national elites. Two particular interests emerged from discussions with local bureaucrats. Charcoal burning was the main source of income in the District but it also generated the most controversy. Yam farming too was important and complemented charcoal burning in terms of farm practices. The catalyst for forming the networks proved to be research – engaging with farmers in research work of direct interest to them, and reporting back to them on the findings.

General social surveys were conducted on conditions of agricultural production and charcoal burning in three settlements. Joint research was also established with a small number of farmers and charcoal burners to obtain a better understanding of natural regeneration of the land following charcoal burning. Inadequate data exist on this. The research showed that charcoal producers were selective in their cutting strategies and did not cut from community-designated forests. Most coppicing species were common and robust and rapidly regenerated with sustainable harvesting regimes of 4-6 years.

The effects of charcoal burning on the environment could not be separated from those of yam farming as most charcoal burners in the project area were also farmers. They preserve many small trees on their farms to provide stakes for the yams. A large number of these are burned during land clearance to prevent them competing with the yams for light and nutrients. After harvesting the yams, the burned trunks are cut for charcoal, but they soon put out new coppice growth and so rapidly regenerate.

This research showed that locally-adapted codes of conduct were already established in the various producer communities, and these were well-respected. It did not support the hypothesis that charcoal production under local conditions destroys the environment. In fact it demonstrated that the preferred option of policy-makers – charcoal woodlots – is unlikely to be a viable option. The environmental effects of clear felling and monocultures of alien species must also be questioned, particularly as this is a fire-prone area.

These findings were discussed in group meetings and at various workshops at District level. As a result the networks expanded rapidly to encompass a large number of settlements both within the District and with communities outside the immediate project area. Although this was a good beginning their impact on decision-makers and on the entrenched views of those who dominate environmental thinking in Ghana may take some time to develop. At present they are severely constrained by the inadequacies of the decentralised government structures. So in the short term, at least, local-level platforms – essential building blocks of the democratic process - may have limited ability to achieve policy influence, even when working effectively.

This is somewhat paradoxical as most of the district assemblies in the region rely heavily on revenues raised by taxing charcoal production. If the high revenue share from charcoal was indicative of unsustainable production, then this would be undesirable on both economic and environmental grounds. But research showed that existing production systems were sustainable on both accounts and this was due in part to the established farming systems. This has policy implications. Policy should focus on reinforcing the authority of producers to manage their resources in line with established local codes of conduct, rather than seeking to undermine them in favour of unproven and economically uncertain alternatives with some highly questionable environmental effects. Thus charcoal commended itself to the research as an environmental commodity of high importance, albeit one marked by a notable imbalance in public perceptions, and an absence of evidence-based policy.

Advocacy

The district level workshops, the numerous feeder workshops, and the network meetings provided the main formal vehicle for producers to put forward their viewpoints to district officials and elected representatives. Various other communications tools were used as well such as posters, newsletters and information sheets – all have contributed to the project's favourable profile in the Districts.

Encouraging signs

It is still too soon to say whether the approaches developed under this project will improve local livelihoods. The objectives were to bring about behavioural changes in the relationships between district officials and their constituencies. There are now positive signs that this is happening. Resource users are more assertive about challenging local government when facing hostility and 'a bad press' from decision-makers and the media. There also is good progress on the information systems that can provide the foundations for evidenced-based policy. But the full impact on the confidence of marginalised resource users to assert their interests in policy circles may only become evident in the longer term.

R7957 Poverty dimensions of public governance and forest management in Ghana

R8258 Informing the policy process: Decentralisation and environmental democracy in Ghana

Building resource users networks can help to put demands on policy-makers

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Creating a community of champions

Getting more research into practice in eastern and central Africa

'The knowledge required for sub-Saharan Africa to achieve its own green revolution is not lacking, what is lacking as ever, is the will to turn this knowledge into practice.' **This well known quote from the UN Secretary-General in 2004 recognises that for decades agricultural research has had limited impact on the livelihoods of rural people in sub-Saharan Africa. Why is this so – what are the barriers that stop good research being promoted and turned into useful information and technologies that can benefit the rural poor? Researchers in eastern and central Africa suggest that a radical change in the culture of research organisations is needed to put more emphasis on uptake promotion. Their approach is to build 'a community of champions'.**

Researchers are willing but...

Most natural resources researchers set out with the intention of improving the livelihoods of poor people but unfortunately they give little thought to how this will actually be achieved in practice. They tend to follow a linear path from the development of technology and new practices to writing papers and reports often aimed at a limited audience. Reporting usually takes place in the final stages of a project when it is winding down and so there is little time, and often little incentive, for researchers to communicate their findings to the very people and organisations that are supposed to benefit from them.

In eastern and central Africa (ECA), one of the roles of the Soil and Water Management Research Network (SWMnet) is to promote and disseminate the findings of soil and water management research. SWMnet is one of the networks of the Association for Strengthening Agricultural Research in Eastern and Central Africa (ASARECA) – an organisation of the national agricultural research systems (NARS) of ten ECA countries. But there was a realisation that SWMnet is unable to meet its objectives without wholesale changes in the prevailing and constraining culture among researchers and their organisations.

Changing research culture

It was against this background that SWMnet undertook a research project to examine the main constraints and barriers to changing the research culture, to raise awareness of the issues among research managers, and to improve the capacity and skills of researchers. The research was based on two important assertions. The first was that despite the prevailing culture, researchers were still the most obvious and able people to prospect for knowledge and technologies and were well placed to promote their uptake – building on what was available was preferable to building something new. The second was that concentrating initially on existing knowledge and technologies rather than on future research could be a faster way of achieving the desired impact.

Hopefully the time is coming when the UN Secretary General's comment will be redundant

The plan was to create 'a community of champions' that would provide a focus for communicating and promoting the uptake of research findings and ensuring they were put to practical use.

Constraints and barriers

SWMnet undertook studies in four ASARECA member countries – Ethiopia, Kenya, Sudan, and Tanzania – to evaluate major constraints and barriers to change. The results confirmed the generally perceived wisdom about agricultural research:

- Government policy and strategy documents stress the importance of agricultural research findings reaching farmers. But this focus can be too narrow and ignores the many other actors who play important roles in the uptake process. They include policy-makers, financing institutions, manufacturers, agro-entrepreneurs, extension service staff, farmers, and business people involved in both input and output markets. All these different actors look at the same issues but in different ways. They focus on what is important to them and to their own decision-making. Each needs information about the same topics but presented in different ways so that each can understand it from their point of view and act upon it – the government minister and the farmer both need to know about new findings for soil and water management but each will need the information presented in very different ways. This goes beyond the traditional role of communicating research findings to the extension workers and farmers. The challenge is to find ways of informing everyone so that each can play their part.
- Research organisations do not generally recognise their potential role in uptake promotion. Most still see their main role is to provide information to farmers via an extension service. A consequence of this is that the time and money allocated to communication and uptake promotion is relatively small compared with that committed to field work, data analysis and reporting (see figure). At most 30 percent of researchers' efforts were spent on sharing knowledge and the least time and funds were allocated to advising clients.
- The majority of researchers are not adequately trained for communication and uptake promotion. Researchers consider this to be one of the main reasons why they do not readily engage in these activities.
- Incentives for researchers such as salary increases, promotion and prizes are awarded on the basis of research work undertaken and reports and papers published. This does not include assessments of how well their work was promoted and the impact it has had on farming. But changing this system is fraught with difficulties. It would be difficult to attribute and assess the impact on farming practices and livelihoods of specific research work and the role of individual researchers, and to develop a system of rewards that recognises the links between them.

Reaching stakeholders

Once the project researchers had these findings, the next step was to communicate them to persons holding key posts in a range of organisations with the aim of making them aware of the findings and to advocate changes. Five main stakeholder groups were identified:

- *Ministers and directors of general planning in ministries responsible for agriculture, rural development, natural resources management, and research* – to mobilise support for the implementation of the policy frameworks which are supportive of uptake promotion and scaling-up.
- *National agricultural research departments, organisations and institutes* – to influence both researchers and research managers in order to increase funding for uptake promotion in research projects.
- *Universities* – similarly to increase funding for uptake promotion in research but additionally to influence the attitude of students who might go on to become researchers in the future.

- *Public extension services* – to promote new thinking about the role of extension beyond the established research-extension-farmer linkages.
- *ASARECA and international research organisations* – to influence decision-making and strategic planning at an international and regional level.

In order to achieve the engagement of these various stakeholders, the project developed and then implemented its communication plan. A range of communication methods and media were used including:

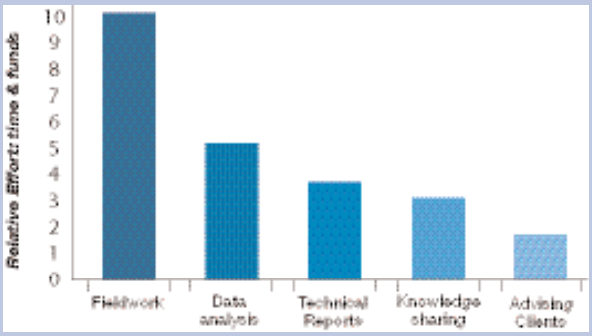
- Workshops, meetings and face-to-face discussions
- An awareness raising film produced on DVD and video
- Technical pamphlets
- Posters produced in the four important languages of ASARECA – English, French, Arabic, and Swahili
- Computer-based presentation packages
- A CD compilation of reference materials, including those of NRSP.

Developing the champions

This work is beginning to stimulate institutional change both nationally and regionally. Already the project's communications plan has been adopted by several organisations in the region as a template. Most notably ASARECA and consequently its partner NARS have decided that an uptake promotion strategy with a well prepared communication plan are high priority criteria for appraising, monitoring and evaluating research projects.

In all some 800 stakeholders in the ECA region were reached during the course of the project. The awareness raising and capacity building has created 'a community of champions' of over 250 professionals who are now trained and able to work as advocates for how best to ensure that research will be put into practice. Evidence is now emerging that new research plans across the whole region contain uptake promotion strategies with the key component of robust (multi-stakeholder) communication plans. Materials produced by the project are becoming a main reference source for those planning new research projects.

Hopefully the time is coming when the UN Secretary-General's comment will be redundant.



Relative allocation of time and funds for different stages along the research to utilisation chain.

The Association for Strengthening Research in Eastern and Central Africa (ASARECA) is a non-political organisation of the national agricultural research systems (NARS) of ten countries: Burundi, the Democratic Republic of Congo (DRC), Eritrea, Ethiopia, Kenya, Madagascar, Rwanda, Sudan, Tanzania and Uganda. It operates 17 networks and programmes including SWMnet.

R8381 Institutionalised scaling-up and uptake promotion of outputs from soil and water management research in east and central Africa

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It's business enterprise not charity

Enabling the poor in eastern India to build their livelihoods

India's rural poor largely rely on natural resources for their livelihoods. But their circumstances – social marginalisation, deprivation, and powerlessness – often limit their access to these resources and to rural services that could help them. Researchers in eastern India are beginning to change this situation. They have developed a method for motivating rural communities, especially the poorest members, that has had positive livelihood outcomes in a relatively short time period and seen the emergence of service providers within the community who were able to facilitate access to credit, inputs and other needed services. Many of these service institutions are now self-financing and there are indications that this model for pro-poor livelihood asset development is robust and sustainable, and has potential for replication in other parts of India.

Endemic poverty in eastern India

In the eastern part of the irrigated lands of the Indo-Gangetic Plain, in the states of Bihar and Uttar Pradesh (UP), 85 percent of the population live in rural communities; population density is high and the literacy rate is low. Land holdings mostly are small (less than 2 ha) and many people live below the poverty line – 43 percent in Bihar and 31 percent in UP – compared with the national average of 26 percent.

Low productivity of the irrigated rice-wheat agricultural system is commonly regarded as one of the main causes of the region's endemic poverty. Past research by the Indian Council for Agricultural Research (ICAR) Directorate of Water Management Research (DWMR, Patna, Bihar) addressed this problem by evaluating techniques for improving crop production and water management. In 1999, the next logical step was to promote these techniques using participatory methods. But there were obstacles. Many of the poor in this region were not farmers. Their very limited incomes were derived from agricultural labouring and non-farm activities. So for research to succeed in improving their livelihoods it would have to include strategies that addressed their particular circumstance.

A further complication was linked with certain characteristics of Bihar and UP. For a mix of reasons – historical, socio-political, governance-related – poor people face considerable difficulties in accessing capital, markets and relevant service support on a scale that is far worse than the poor experience in other areas of India.

In sum, reaching the poor in Bihar and UP, including them in the technology transfer research in ways relevant to their circumstances, and identifying viable ways for them to build their livelihoods was a tough research assignment.

Members contributed at most Rs5 per week (US 10 cents) and often much less, as little as Rs0.50 (US 1 cent per week)

Furthermore, the research partners for this assignment represented a new venture: a leading partner was a national government research organisation, ICAR Regional Centre for the Eastern Region, IRCER (formerly DWMR, Patna); specialists from various UK research organisations and one international organisation made short term inputs; and an Indian private company, CIRRUS Management Pvt Ltd, that specialises in development of community-based micro-organisations, had the lead input for community-level work.

Research on Self-Help Groups

Research began in late 2000 and included the formation of Self-Help Groups (SHGs). SHGs and their use for micro-finance initiatives are at least two decades old in India. Substantial work has been done to develop and experiment with them to deliver financial services to the poor, mainly through initiatives of non-government organisations (NGOs) working in various states. However, in spite of considerable success, those who promote them recognise a need for more effective and cost-efficient ways of managing these efforts.

One feature of SHGs is that the majority have women members – indeed, for some, the term SHG means savings and credit groups for women. Nevertheless, their effectiveness for reaching the poor was an issue. There was evidence that micro-finance did not reach the poorest of the poor, and if it did, they did not benefit from it as much as those who were better-off. Also although SHGs are widespread in India, they do not operate everywhere. In some of the poorest areas, where seemingly the need for them is greatest, there are few SHGs or even none – one such example is Bihar and UP.

Making the poverty focus a reality

Although there was no prior experience of SHGs in the two districts chosen for the research (Patna in Bihar, Maharajganj in eastern UP), the numbers of SHGs formed well exceeded planned targets. By March 2004, about 520 SHGs had formed in 77 villages of which at least half were men's groups. The SHGs included 2,700 poor households, some 40 percent of all poor households in the target villages.

This success was achieved because of the way in which researchers set about initiating and nurturing the SHGs. A key guiding principle was the need to develop a business model that generated revenues so that it could attain sustainability and eliminate dependence on donor funds.

The first 12 months

CIRRUS staff commenced work in Bihar by making a 'low key' entry into a village. They sought engagement with the poorest village members and used open semi-structured dialogue to gain an understanding of the nature of people's livelihoods, their socio-economic conditions, and their main problems. The villagers identified poor households and their characteristics such as landless, long sickness, irregular employment, and alcohol abuse.

During their regular visits, CIRRUS staff noticed that some villagers were more motivated than others – typically they eagerly awaited the next meeting and asked constructive questions. Often they were better-educated, but unemployed. CIRRUS recruited them as volunteers on a short-term basis to form SHGs, facilitate their meetings and help with SHG record keeping. They fed back information to CIRRUS staff and this was recorded in a database on SHG activities and progress. The volunteers were paid a small honorarium for their work – Rs25 (US$0.50) per SHG meeting.

There was no pre-determined agenda for SHG activities and no incentives. SHG members were encouraged to examine their livelihoods and determine what development activities they could pursue. As access to credit was identified as a need, SHGs began regular saving from an early stage. Members contributed at most Rs5 per week (US 10 cents) and often much less, as little as Rs0.50 (US 1 cent per week). Indeed, those SHGs that took good account of their impoverishment and made very small weekly savings were better able to keep this up while more ambitious SHGs encountered problems.

SHG members were encouraged to take loans from the group savings to meet specific demands. Loans from group savings were 'untied' – the borrower determined their use – and the SHG decided the interest rate, which was much lower than those of money lenders. SHG members liked both these features. At the beginning loans rarely exceeded Rs200 (US$4) and were commonly taken to meet pressing cash needs. After some months volunteers found that some SHGs members wished to obtain larger loans than their group savings could afford and so the volunteers began providing loans to their SHGs using their own savings from their facilitation work. CIRRUS too made a loan of Rs500 (US$10), through a revolving fund that volunteers managed, to those SHGs that were working satisfactorily. In this way SHG lending began to support more ambitious livelihood activities and a village-based credit scheme developed.

Volunteers also recognised they could sell their skills in guiding groups and maintaining accounts, and they also were successful in acting as brokers for access to service providers and suppliers. This in turn stimulated volunteers to encourage more villagers to form SHGs. Villagers were willing as they had seen the benefits from both SHG membership and the way in which volunteers were on-hand to support them.

Mature SHGs and experienced volunteers

After 48 weekly meetings and repayment of the initial Rs500 loan an SHG was regarded as mature. Contact with CIRRUS staff ceased and CIRRUS no longer paid the volunteer's cost for facilitating the

SHG's meetings. An SHG's credit-worthiness could be established from the records of loan repayment in the CIRRUS database, so it was feasible for an SHG to take on larger loans provided they could link up with suitable micro-finance institutions (MFIs). The volunteers enabled this link to come into place. After a year of activity volunteers formed their own SHG for mutual support and registered themselves as a community-based NGO – the Sustainable Livelihoods Promotion Society (SLPS). As an NGO they could open a bank account and access funds from national MFIs. SLPS thus became a viable micro-organisation and the vehicle for providing loans to mature SHGs of up to Rs2,000-3,000 (US$40-60). SPLS continued the other services to SHGs, such as group facilitation, and access to inputs and other needed services, with an appropriate charge.

The evolution of this 'win-win' situation for both SHGs and the volunteers accounts for the scale of SHG formation and its appeal to men as well as women. But SLPSs also needed support for their links to MFIs, for loan guarantees, and access to information sources. Recognising this need, some CIRRUS staff responded by forming the Centre for Promoting Sustainable Livelihoods (CPSL, based at Patna) to provide them with support on a fee paying basis. The overall model that emerged is shown in the figure.

What has changed?

The changes in individuals, communities, and organisation development can be summed up in one word – empowerment. At the start of the research, the poor were so poor that they could not advance.

CENTRE FOR PROMOTING SUSTAINABLE LIVELIHOODS (CPSL)

NGO of professionals to support SLPSs in: data-base management, micro-finance and provide technical backstopping on enterprises, technologies and markets

SUSTAINABLE LIVELIHOOD PROMOTION SOCIETY (SLPS)

NGO of village volunteers to support SHGs with: micro-finance, accounting services, input services, linkage with outside agencies to access finance, technologies and markets

SELF-HELP GROUPS

Organisations of the poor with a membership of 10-20 persons primarily involved in regular savings and lending for consumption and investment purposes

By the end, they were less poor and the assets that they steadily had developed – social, financial, human – made it possible for them to access micro-finance and other services and pursue opportunities that could help them to build their livelihoods.

The complementary research on technology transfer and improving water management provides examples of this empowerment – what it 'looked like'.

Technology transfer

SHGs were expected to serve as contact points to promote agricultural technologies through participatory research – Participatory Technology Development (PTD). But this relied on participants having access to land and water resources. As many SHG members had neither, scientists questioned whether it was relevant to work with such resource-poor groups.

In Bihar, IRCER continued its work with land-owning farmers in the hope that the technologies would be accessible by the poor at some later date. However, the progress of SHGs, especially the access to credit at reasonable interest rates, had enabled some landless people to embark on new agricultural activities. IRCER scientists became aware of this (Box 1) and realised it could be worthwhile to work with SHGs.

A further change was to move PTD towards a business model. The form of PTD that scientists knew well, where technologies are tested with some selected farmers whose costs are covered and which requires considerable inputs of scientists' time, was not used.

Box 1 – Poor women lease marginal land to produce high value crops

Eleven landless women obtained a loan from their SHG to take up a lease for 4 ha of land and to buy inputs. They knew the land was marginal and required intensive management – this was part of the reason for its availability from a local landowner. But they also knew they had the time to manage it intensively to obtain food for subsistence and income. They used their SPLS to obtain information on growing high-value vegetables, and through the SPLS approaching IRCER, scientists came to know of their endeavours.

Instead, they adopted an advisory service model that could support people's own experimentation with those technologies that interested them, reach larger numbers of people, and required only limited inputs of their time. Provision of information in accessible forms was an essential initial input to this style of PTD. Scientists prepared suitable communication materials and a suite of communication methods – messages, field demonstrations, leaflets, video, outputs of simulation models – were used to 'broadcast' what was available. SHGs then followed up whatever was of interest to them (Box 2).

Improved water management

A second strand of technology improvement led by IRCER was to deal with the problems of poor water management – lack of timely provision of canal water, poor drainage making land management difficult, areas of ponded water, heavy silting in canals.

IRCER already had links with Water Users Associations. But their membership was dominated by farmers with larger land holdings. The formation of SHGs and SLPSs, and the way in which this improved the capacity of less powerful people to present their case, led to a readjustment of who was consulted on water management decisions. Outlet Management Groups that controlled water from the distributaries to the fields were now formed with a broader membership. This led to better water management at this critical point (for farmers) in the irrigation system.

Taking stock

This research developed a method for community motivation that was effective in finding and including the poor. But it then went much further – it developed a self-sustaining business model that enabled poor people to access resources and support services on their own terms. Asset development (human, social, financial) was a key feature of the enabling process, and the poor had control over this – they decided to be SHG members and to save and take loans, and they took the risk of pursuing livelihood opportunities. The institutions that came into place (SHGs, SPLSs, CPSL) were also key pillars for achieving this outcome but in the framework of operating a self-sustaining business model that was independent of donor support.

Box 2 – Matching technologies more closely to the circumstances of the poor

Waterlogging in low-lying lands is prevalent in the irrigation system in Bihar. To overcome the problem some farmers raise field levels by digging soil from another patch of land, leaving a pit in which water accumulates. Other similar pits occur where soil is dug out for various purposes. When IRCER shifted the PTD emphasis to low-cost interventions, scientists set up demonstrations of fish farming and rice-fish culture in waterlogged areas and in pits. They also developed communication materials and personally interacted with SHGs to discuss aquaculture. Poor farmers whose land had waterlogging problems were interested to combine rice and fish production. Landless people realised they could take out leases on water-filled pits and depressions and culture fish in them. In some cases horticultural crops were grown on the surrounding bunds, adding to profitability. Fish culture has proved popular as a livelihood activity and has spread.

On the service supply side, the link with IRCER was, of course, potentially very valuable. But for IRCER to be effective it was necessary for scientists to broaden their contacts with rural communities and change their procedures for, and attitudes to the promotion of technologies. The evidence is that in terms of realising a poverty focus it was worth it – poor farmers, sharecroppers and landless people found technical options that they could consider pursuing and acted on them and 'had a voice' in water management. Finally, the mix of disciplines and skills, and differing professional contexts of the research partners were essential for covering the several dimensions of this research – institutional, technical, and communication science. Relationships were not always easy but the partnership was a key ingredient for success.

What next?

If you have a good product – market test it elsewhere! It is gratifying to know that this is already happening in several other states in India and through various national programmes and research and development partnerships.

R7830 Integrated management of land and water resources for enhancing productivity in Bihar and eastern Uttar Pradesh

R7839 Livelihoods improved through improved crop and soil management`

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NRSP's 'legacy' website

A knowledge-bank for pro-poor natural resources management

Research Highlights

Research Highlights was published annually by NRSP from 1999 to 2006. In each of the seven issues, articles highlight the progress that year on selected research topics (e.g. empowering poor farmer-fishers, managing common pool natural resources, peri-urban livelihoods, rainwater harvesting). Research Highlights can be downloaded as a complete issue or the 'Highlights Browser' can be used to sort and select downloads amongst the 50 individual articles.

Node: suites

Uptake Promotion was central to NRSP's strategy and was focused on eight Uptake Promotion Nodes. Seven of these Nodes were geographic (Bangladesh, Bolivia, Caribbean, eastern Africa, Ghana, India, Nepal) and one was system based (Peri-Urban Interface). Within Nodes projects were clustered into Node: suites around research topics and common stakeholders. Summaries of NRSP's work in each Node: suite provide a quick guide to the main research issues and products in each Node: suite and are accessible directly from the Home page.

Since 1995 NRSP has produced a wealth of research knowledge and products. These are now available in the public domain on the 'legacy' website – www.nrsp.org.uk. This website ensures that information on all aspects of NRSP's work will be available well beyond the end of the programme.

Bookshelf

The Bookshelf includes NRSP Briefs, books, guidelines, technical reports, videos and audios that are of broad interest or of particular value for the integrated management of natural resources. The 'Bookshelf Browser' allows easy access to the Bookshelf through a sortable list by Title, Country and Author.

Browser pages provide an overview of each publication and its download or publisher information as well as links to details of the parent project, including its other research products, within the Project Database.

Project Database

The Project Database provides details and information on 190 projects and assignments and about 500 research and uptake promotion products as downloads. Users can search for projects, publications, organisations, and people using free text, key words or categories. Database pages provide summary information on each project and a publication listing with downloads.

Scaling-up the good bits

Enhancing development impact of process tools developed in eastern India

Most people learn by doing rather than by reading about what others have done in other places. Language, culture, fluctuating inter-country relationships and many other elements that enrich society are also barriers to taking-up and promoting other people's good ideas in new situations. So how do researchers promote their findings so that others can benefit on a national and even an international scale? Researchers faced these issues when they decided to promote a set of tried and tested process tools they had developed to improve aquaculture services to poor, rural communities in eastern India. Well established local and international networks and the Internet proved to be invaluable assets.

In eastern India

Over the past 10 years NRSP has supported aquaculture research in rural eastern India to help severely disadvantaged social groups who rely on limited natural resources in remote areas. Researchers began in West Bengal where they demonstrated that small-scale fish farming using seasonally stored water was both technically and socio-economically feasible. Using this knowledge farmers started developing their own fish farms and, with further help, they formed Self-Help Groups (SHGs) for mutual support. Some groups went further and formed federations in order to broaden their support network and to draw in the external services they needed such as finance and technical assistance. Researchers also worked on issues of policy and developed an inclusive method that identified key policy changes that would favour aquaculture services for poor farmers. The policy recommendations were then successfully promoted at a national level and in three states in eastern India (Jharkhand, Orissa and West Bengal).

A by-product of this research was a set of three tried and tested process tools, all of which were relevant to helping poor people to build their livelihoods:

- Information Access Survey (IAS) – helps to identify and recommend methods of communication appropriate to people who manage aquatic resources, with a focus on poor rural communities.
- Consensus-Building Process (CBP) – helps to prioritise policy-change proposals, build shared understandings, sensitise senior policy-makers to the policy change proposals coming from remote communities, and facilitates the bringing together of state and national policy-makers, implementers and recipients of services to review policy.
- Building Social Capital (BSC) – provides promotional steps to support the development and operation of farmer associations, such as SHGs, and the establishment of a support network of community-based professionals, with poverty alleviation as a shared common purpose.

To overcome the many barriers to uptake STREAM used its well established network of Communication Hubs

This work coincided with growing demand from agencies concerned with aquatic resources across the Asia-Pacific for methods, decision-making tools and process recommendations to improve the capacity of service staff to support poor people's livelihood development. So it was decided to take the three process tools and promote their uptake regionally in ways that they could again be used at a local level to improve the livelihoods of the rural poor.

STREAM – an ideal vehicle

The STREAM Initiative provided the ideal vehicle for this. This is the Support to Regional Aquaculture Resources Management of the Network of Aquaculture Centres in Asia-Pacific (NACA) – a Bangkok-based regional learning and communications initiative that aims to support the livelihoods of poor people who manage aquatic resources.

STREAM had for some time been active in aquaculture research in eastern India. It was also well aware of the fundamental problems of sharing research products and scaling-up their use. To overcome the many barriers to uptake STREAM used its well established network of Communication Hubs. This is a cross-cultural linguistic network of development professionals working in target institutions in NACA member countries. Such networks are usually beyond the scope of short term projects as they take considerable time to negotiate and establish.

Key persons in aquatic resources agencies from eight member countries – Cambodia, India, Indonesia, Lao PDR, Philippines, Nepal, Sri Lanka and Vietnam – were invited to a workshop to identify suitable ways of sharing and promoting the process tools in each national context. From these discussions the need to present the information in two forms emerged – Policy Briefs (PBs) that provide succinct directions for busy policy-shapers and makers; and Better-Practice Guidelines (BPGs) that propose procedures for improving ways of working for extension agents of both government and non-government organisations involved with rural service provision. All would be produced in local languages. The generic nature of PBs and BPGs meant that they could be applied to many development fields such as forestry and livestock and not just aquaculture. So basic questions were addressed such as: Who are they for? What is their purpose? How will they be used? Once the generic structure was agreed it was then applied to aquaculture and to each of the three process tools in turn.

Early drafts were prepared at the workshop and then shaped over successive months using NACA's network and its capacity for online discussion using the Internet. Communication Hub Managers in the different countries canvassed the views of various stakeholders using their local networks – most of whom did not have access to the Internet. This proved to be a very enthusiastic process. As one NACA communications specialist said *'If people have a common interest they will engage in discussion and will assist each other; the larger the number of registered users, the greater the chance of an informed response'.*

PBs and BPGs were first agreed and finalised in English and then their meaning (not the just the words) was translated into 11 languages – Bahasa Indonesia, Bengali, Hindi, Ilonggo, Khmer, Myanmar, Nepali, Oriya, Sinhala, Urdu and Vietnamese – using members of the Communications Hubs. As the work progressed, they were reviewed by local stakeholders together with options for their promotion, with a final inter-country review at a workshop co-hosted by the Government of Vietnam Ministry of Fisheries.

Putting publications to good use

PBs and BPGs on the process tools have now been produced in 12 languages, tailored to the respective needs of policy-makers and practitioners, and are being promoted in various Asia-Pacific countries. Already, in some instances, they are in use. Although it is still too early to identify impacts resulting from their application, there is a growing demand for the publications from projects, and government and non-government agencies.

Encouraging signs include:

- BPGs on aquaculture have proved popular in India where the ideas originated. Their introduction in India coincided with the evolution of local institutions called One-stop Aqua Shops (OASs). These are single-point-under-one-roof service providers for small-scale aquaculture financed mainly by SHGs and the sale of fingerlings to farmers. Currently nine OASs are using BPGs prepared in Oriya, Hindi and Bangla in the states of Orissa, Jharkhand and West Bengal. STREAM, in association with local organisations, has launched an OAS Information Service to supply them with the communication materials they require.
- In the Philippines, the Asian Development Bank's Fisheries Resources Management Programme used the BPG on Information Access Survey to help shape its extension efforts.
- In Cambodia, the Asian Development Bank and FAO used the Information Access Survey to learn about and inform knowledge sharing around the Tonle Sap floodplain.
- In Nepal, the government Department of Fisheries Development, Extension Officers and NGOs are using the BSC-BPG to encourage the establishment of Self-Help Groups.
- STREAM Indonesia presented the new genres to various farmer and government organisations disseminating fresh water culture technology to communities.
- After learning about building social capital from the BSC-BPG, the first Self-Help Group was established in Ninh Binh Province, Vietnam.

A good example

This is a good example of how useful research products in one country can be promoted to benefit poor farmers in other countries by finding ways to cross the barriers of culture and language. A crucial ingredient was the well established and robust STREAM network of professionals, each with their own local networks of extension workers and farmer groups, all willing and able to contribute to the regional debate. But this could not have happened so quickly and so effectively without the Internet. It brought people together from many countries across a large region and helped to empower them to take ownership of new ideas developed elsewhere.

Working in this way with stakeholders across the region has brought familiarity and rapid acceptance of the communication genres, PBs and BPGs. Importantly, there also is acceptance of the value of the three process tools for helping service providers to better meet poor people's needs.

R8363 Enhancing development impact of process tools piloted in eastern India

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Ways of getting things done

Finding the right institutions for floodplain management in Bangladesh

The floodplains of Bangladesh provide crucial livelihood opportunities for millions of poor people. But their ever-changing character and the diverse range of stakeholders that use them makes their equitable and sustainable management especially difficult. International donors, governments and NGOs have all tried to ensure wise use of floodplain resources and despite their efforts results are at best mixed. So what lessons can be learned from this for the future? Research suggests that supporting existing institutions can be key to ensuring sustainable benefits for the poor. A more adaptive approach is needed to find institutional arrangements that work.

In Bangladesh...

Floodplains in Bangladesh conjure up dramatic images of catastrophic flooding. Yet they are home to some 80 percent of the country's population. More than half of rural households are landless and subsist below the poverty threshold. Their livelihoods are a complex mix of farming and fishing, which rely on the seasonal interplay between land and water. Food production has broadly kept pace with population growth and this is largely due to investment in small-scale irrigation for rice cropping and in flood control and drainage which reduces inundation in the monsoon. But such improvements have been at the expense of fishing, which is becoming increasingly marginal, and the floodplain ecosystem which is a rich source of biodiversity, aquatic flora, birds and fish.

Involving stakeholders

Many recent floodplain development initiatives have emphasised the importance of involving local stakeholders in the management of natural resources. These strive for 'collective action', 'participation', 'equity', and 'pro-poor' outcomes. They assume that stakeholder involvement in designing rules and activities for resource management will increase participants' personal stake in achieving appropriate and hence sustainable outcomes. This approach to management would then be self-sustaining. Positive outcomes would lead to continued participation, increased acceptance and a continuing cycle of pro-poor integrated floodplain management (IFM).

Donors, government and NGOs have all subscribed in various ways to this approach to bring about sustainable floodplain management and pro-poor outcomes. Although there have been some successes many have failed on both accounts. Many projects have experienced difficulties in ensuring benefits for poor people and sustaining positive changes, particularly when external support finishes.

Learning from this experience

In order to learn from these experiences an extensive review was undertaken of project impacts on the poor, the performance of rural management organisations (RMOs), and the role of participation involving the entire range of floodplain stakeholders – from target beneficiaries and other local stakeholders to project field staff and project managers based in Dhaka.

This work has started the debate about what constitutes the 'right institutions' for IFM

Particularly useful was a method of process documentation that gathered the opinions and understanding of a range of local people in confidence.

Special emphasis was given to well-established community management practices or 'local initiatives' that operate without outside support.

Formal and informal institutions

Normally, floodplain management institutions are taken to mean national and sector-specific bodies such as the Department of Fisheries or the Ministry of Water Resources. All sectors – fisheries, water, and environment – have attempted to include local representation by building new institutions such as RMOs in at least some of their projects. But their efforts are not well coordinated. Each sector has its own policy objectives, approaches to management, and RMO model. Also their purpose in promoting participation and the role of RMOs is different (see table below).

In addition to these formal interventions another mode of floodplain management exists. Informal 'local initiatives' were found to have very different objectives and rather than operating through the new structures, they used existing and informal institutions to implement floodplain management.

Two important informal institutions seem to shape this type of management. The *salish* a local dispute resolution system where elders have authority to make decisions about local conflicts, land use or access issues – and *samaj* – a type of 'brotherhood' (linked with the Mosque) that emphasises social duty and helps to make mosque committees and their decisions well-supported and locally legitimate. These interact with the formal institutions to a point where it becomes difficult to discuss the function of one without the other. For instance, the performance of local government (formal) is better understood by also considering the role of the mosque or local political allegiances (informal).

From these observations a more practical definition of institutions emerged – meaning *'regular patterns of behaviour'* or simply *'ways of getting things done'*. This definition brings together the formal institutions, such as visible organisations and committees, and the informal ones that are less tangible such as local power relations and social or religious norms.

Recurring issues

The research showed that all types of floodplain management intervention had their own characteristic sets of achievements as well as problems. Crucially, there were recurring issues that should be addressed in future:

- *Local support for new management and RMOs is limited by bad past experiences or low perceived relevance.* The purpose of new initiatives must be made clear early on. The interaction between primary stakeholders and supporting agencies often declines too quickly, sometimes because participation is only considered important at the beginning of projects. Local champions, such as individuals, informal institutions (mosque committees, the *salish*) or formal groups such as RMOs or local government institutions, are needed to take management forward. Existing institutions are more likely to outlive new RMOs and will be better placed to access the support of other secondary stakeholders and widen legitimacy.

Features	Sector		
	Fisheries	Water	Environment
Participation	Group formation and light support	Group formation and planning	Continuous, advisory
Project Purpose	Increased fish production	Flood management for increased farm production	Habitat management
Structures (RMOs)	Fixed groups	Fixed, hierarchical groups	Resource management and alternative income generation groups

- *All IFM stakeholders recognise that 'resource capture' by influential people is a real problem.* New opportunities that arise from IFM interventions are most readily accessed by the wealthy who can afford to invest time and money. Initiatives should recognise the need to assure fair access for the poor and to track social impacts.
- *There are real difficulties gaining widespread local support and enthusiasm for IFM interventions.* Some IFM interventions have actually tended to alienate some groups, polarise livelihoods groups and create conflict. A livelihoods-based approach with real effort for holism may avoid this problem and help identify 'win-win' options. Tools such as Participatory Action Plan Development (PAPD) could be applied prior to any changes in floodplain management. Good facilitation skills are an asset to enabling effective communication between stakeholders and coordination of efforts.
- *Constraints to scaling-up effective floodplain management occur at national, regional and local levels*. Project managers believe that local-level issues such as 'resource capture', lack of support, and new conflict are the key bottle-necks. Managers identified a need for trained local field staff with the ability to understand local social and political issues who would be equipped with the tools to record significant events and react to them.

The challenge ahead

This research has shown that the performance of IFM projects depends on much more than the design of their user committees or other project structures. Rather they are shaped by the informal institutional setting that surrounds them. There is evidence of a real demand for more adaptive approaches to IFM that incorporate proven institutional mechanisms for pro-poor participation. This work has started the debate about what constitutes the 'right institutions' for IFM. The need now is to 'keep on keeping-on' – communication, promotional work, continued strengthening of evidence of institutions that work – so that sustainable institutions for pro-poor management of Bangladesh's vital floodplain resources are realised.

R8195 Integrated floodplain management – institutional environments and participatory methods

The guidelines and outputs developed by this project have since been further developed as a policy brief by R8495 Promotion of sustainable institutions for integrated floodplain management: integrated floodplain management: barriers and challenges.

For more details of participatory action plan development (PAPD) see R8223 A learning and communications programme for Participatory Action Plan Development methodology.

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Linking research, policy and livelihoods

Researchers can influence policy and hence livelihoods

Natural resources research has become increasingly focused on influencing policy as a means of improving the livelihoods of the rural and urban poor. Researchers recognise the importance of this but often do not include crucial elements of the policy process – power and politics – in their investigations. So how can natural resources researchers take better account of the complex and dynamic world of policy processes? A review of 35 NRSP research projects – a rich source of information about the relationship between natural resources research and policy – provides some suggestions.

Researchers often have a simple picture of the relationship between research and policy. Policy-makers are thought to systematically and rationally analyse problems, define solutions using the results of research and then implement them. But researchers are beginning to realise that the picture is much more complex and that policy-makers take up research findings in a variety of different ways.

The role of power

Power and politics play a vitally important role in policy processes and this was well recognised in many NRSP research projects. Some illustrated power relations at work, but few systematically analysed them and so power and politics were generally overlooked in efforts to influence policy. As a result, managerial and technical solutions to problems were produced that largely downplayed the reality and importance of institutional change and politics. This matters because failing to take account of power and politics reduces the chances of research having a pro-poor impact on policy.

Interdisciplinarity is key

Connecting the technology and productivity interests of natural scientists with the policy, institutions and political interests of social scientists is one approach to strengthening policy influence. Researchers undertaking NRSP projects were predominantly from a natural science background. But over the 11-year life of NRSP they were encouraged to adapt their research to accommodate a shift in emphasis towards policy and institutions. Some did this well, others less so; but the important point was that it was not part of what they were trained to do.

The few projects that explicitly engaged with policy formulation and implementation processes were led by researchers whose primary academic training was in social science. This allowed them to describe policy processes in the language of politics and power, context and contingency. This was less easy for natural scientists, for whom the linear language of cause and effect is more normal and acceptable.

So positive livelihood outcomes are more likely to emerge from development-oriented research when there are close relations and good communications between natural and social scientists, and transparency when addressing the

Policy on paper and policy in practice are not well connected

sometimes difficult clashes or competition for resources that can often mar their collaboration.

Characteristics of research that influences policy

The review revealed several key characteristics of research that influence the likelihood that research findings will have an impact on the policy environment:

- *Reflexive practices.* If, as they are urged to do, researchers are to engage directly in the processes they seek to influence, then they must consider their own position, and the implications this has for what can and cannot be done with their findings. If research is really to influence policy, researchers need to become more visible, and clearer about the kind of changes they are aiming for, and are able to achieve.
- *Networks and support for learning.* Influencing policy is often about building stronger bridges between institutions and stakeholders at different levels. It is also about supporting policy-makers in their efforts to learn, rather than simply giving them access to more information.
- *The role of individuals.* Individuals have a key role in either catalysing or inhibiting institutional change. Their pivotal role demands a focus on the micro-politics of how decisions are made and the consensus required for different kinds of action. Trusted individuals are key to effective communication and learning processes. But change initiatives that over-rely on individuals may become fragile and vulnerable.
- *Time, continuity and commitment.* In those projects where change has been successfully stimulated through research, significant investments of time and the construction and maintenance of local alliances have proved essential. This implies ownership of the research agenda by local partners and a long-term commitment from the research funding body.

Policy and livelihood outcomes

Livelihood changes can be very unpredictable and occur for a wide variety of reasons, many of which have little to do with policy – either its content or the manner of its implementation. The research projects reviewed contained a wealth of insights into local and national factors that influence these changes. These exist regardless of what researchers do, and it is important for policy-makers to understand them and engage with them. The most important factors are economic status, age, and gender, which play a critical part in shaping opportunities to sustain or improve livelihoods.

So the link between policy and livelihoods is not always as clear as it is often assumed to be. Policy on paper and policy in practice are also not well connected. Indeed, implementation sometimes has little to do with the merits of the policies themselves. There are many examples to show how policy can have unintended impacts on livelihoods. These may be positive impacts for some, but negative impacts for others, some of whom may not have even been the original targets of the policy. Those badly affected are often marginalised or disadvantaged groups. One example from Ghana demonstrates the diverse and unexpected impacts of the country's decentralisation policy (Box 1). Despite the policy's good intentions, it did not always have a positive effect on natural resources management.

Box 1 – Decentralisation in Ghana

Local government decentralisation in Ghana has its origins in reforms first introduced in 1987. While devolution is still far from complete, a progressive transfer of decision-making and legislative control to district-level authorities for many aspects of environmental management is underway. However, despite the stated aims of decentralisation policy, there is little evidence that attempts at decentralisation are increasing the chances that marginalised voices will be heard in the policy process. Even at local level, the prevailing narrative that the poor are responsible for environmental crisis is very strong. This reinforces the continuation of a top-down approach that draws on received wisdom about the environment rather than actual conditions on the ground. In addition, new institutions and decision-making processes are located in an environment where rights and claims to natural resources are shaped by factors such as ethnicity, age, gender, and length of residence. New decentralised institutions seldom take adequate account of these contextual factors.

Based on NRSP projects R7957, R8258

Box 2 – Influencing aquaculture policy in India

In eastern India, in remote areas where poor, severely disadvantaged people rely on natural resources for their livelihoods, influencing policy was an important part of improving opportunities for them to undertake fish culture and access the services that they needed for this enterprise.

Studies of how poor people undertake fish culture were presented in a range of media – videos, slide shows, a village drama – to bring the 'voices of the poor' to the attention of policy-makers and service providers. Information in the studies was the basis for discussion and gathering recommendations for policy changes that took good account of those most affected by existing aquaculture policy – poor rural fishers and farmers.

Importantly, before the studies, researchers discussed the research plans with the most senior national fisheries policy-maker. He was supportive and empowered other government officials to take part in the project's consultative process. He also requested the project to provide a concept note on aquaculture policy revision for possible inclusion in India's Tenth Five-Year Plan.

The portfolio of policy change recommendations was shared with administrators at national and state levels through a semi-anonymous consensus building process. This process avoided hierarchical decision-making and built consensus on the main priorities extracted from the first longer list of recommended changes. Follow-up has been relatively rapid. Both policy-makers and policy-implementers have acted on some of the recommendations and poor people have responded to the more supportive policies and services. Already there are plentiful examples of improved livelihoods that can be linked with the changes that this project engendered.

Based on NRSP projects R6759, R8100 and R8334

Lessons for the future

The review draws upon a rich source of lessons about policy processes for natural resources management and the potential for research to influence policy as a means of improving livelihoods. But the review also cautions that the pathway from research to improved livelihoods via policy change is an unpredictable one. So if researchers are to be more effective in influencing policy they will need to understand more about what policy is, how it works, and how it interacts with other factors to influence development outcomes.

This appears to be a tall order, but some research projects were successful in influencing policy and some favourable livelihood outcomes did follow. A common feature of such projects was that they included several of the positive characteristics listed above. An example is shown in Box 2.

Researchers will need to know much more about what it takes for research to influence policy

This article is based on: Brock K. and Harrison E. (2006). Linking research, policy and livelihoods: challenges and contradictions. NRSP Brief.

R8493 Policy processes and institutions in NRM: lessons from NRSP research

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Making a difference

Pro-poor livelihoods impact – the contribution from research

'Did your research achieve impact?' 'Did it benefit the livelihoods of poor people?' These are questions that donors of natural resources research, who are committed to the Millennium Development Goals (MDGs), are entitled to ask especially when they have provided research funding over a number of years. Similarly, policy-makers may ask – 'Can your research findings make a difference?' 'Can adopting your recommendations really improve the livelihoods of large numbers of poor people?' So how does NRSP measure up to these questions? Here are some of the answers.

Unreasonable questions?

Researchers may feel that such questions are a bit unreasonable. They may have evidence from their research of favourable livelihood outcomes – changes in poor people's behaviour that should help them to achieve a better life over the longer term. But to be expected to have evidence of impact – evidence that livelihoods have improved, that people are less poor, that they accumulated some assets – can seem too demanding, because such changes often just need time to come into place. Also such changes are affected by more factors than the potential for beneficial outcomes from a particular piece of research.

Measuring up

In many cases, the projects in NRSP's portfolio are not stand-alone projects. Rather, they are one in a sequence of projects planned incrementally to achieve certain objectives. Some topics have been worked on for at least seven years and in some instances for the full 11-year life of NRSP. In these circumstances, the 'impact' questions are more justified. Indeed having evidence of livelihood impact from research is an asset that can add weight to uptake promotion work with those planning and implementing development projects and programmes.

Three examples are featured here. These are not only interesting of themselves, they also show three different ways in which research projects can assemble evidence of livelihoods impact.

Harvesting the rain

A 13-year programme of research on rainwater harvesting (RWH) – where farmers divert gully flows, road drainage and sheet flows into their fields to supplement direct rainfall – was led by the Soil and Water Management Group (SWMRG) of the Sokoine University of Agriculture in Tanzania. This contributed to the government's recognition in national water policy (2002) of the potential of RWH in arid and semi-arid areas and the commitment to promote it in rural areas. Various aspects of this research have featured in previous editions of NRSP Research Highlights.

Translating this commitment into meaningful public investment in RWH, targeting resource-poor farmers, requires economic justification in terms of its potential to impact on poverty. So in 2003-04, SWMRG

This contributed to the government's recognition in national water policy (2002) of the potential of RWH in arid and semi-arid areas

undertook a detailed economic study to compare the expenditure of households who were practising RWH with other comparable households who did not, and to assess the performance of crop and livestock enterprises with and without RWH. It was conducted in two contrasting Districts – Same in Western Pare Lowlands where farmers have good access to the Nairobi to Dar es Salaam tarmac road and hence to markets and other livelihood opportunities; and Maswa, a remote area south of Lake Victoria. Some 300 households were involved in the survey, all of whom were under or only slightly above the poverty line – defined as living on less than US$1/person/day.

Increased household expenditures

The main findings are summarised in Table 1. In Maswa, the majority of households practising RWH had significantly higher expenditure rates than those who did not. For the upper (richest) quartile this was reversed. This could be attributed to less dependence of this group on crop production and a greater proportion of income coming from off-farm activities and livestock. In Same, the findings were the opposite of those for Maswa. It was found that practising RWH did not benefit poorer people (those in the three lower expenditure quartiles) but did significantly benefit the richest people. This finding for Same was supported by other studies of people's access to water runoff in RWH systems. In Same, it was found that richer people have more access to runoff because of the location of their lands relative to the water source in the RWH system combined with their power in the local society.

Table 1: Mean household expenditure (US$/person/year)

Household expenditure quartile	Maswa		Same	
	With RWH	Without RWH	With RWH	Without RWH
Poorest	60	49	108	117
Poor	105	94	188	194
Medium	166	154	269	296
Richest	323	397	579	437

A study of crop yields generally supported the household expenditure findings. It was found that RWH gave impressive returns to land and labour even when seasonal rains were below average. A further dimension to these findings was that female-headed households were more dependent on crop production and had less diverse livelihood activities than male-headed households (Table 2). Moreover, richer households (based on the expenditure data) were male-headed. Thus, while the study had produced evidence of the potential of RWH to reduce poverty and livelihood vulnerability in seasons with poor rainfall, it also showed that livelihood development requires a broad approach that encourages enterprises in and beyond agriculture. The development of RWH definitely can and should be an important part of this, but other opportunities are needed to support poor people's livelihood development.

A gratifying aspect for NRSP regarding the inequity of the findings for Same was that one of the last RWH research projects undertaken with NRSP funding specifically addressed the issue of improving equity in resource access in RWH systems.

Table 2: Livelihood options by gender of household head (percent)

Livelihood options	Maswa		Same	
	Male	Female	Male	Female
Crop production	70	90	48	63
Livestock rearing	17	5	24	37
Employment	3	5	3	-
Petty business	7	-	9	-
Artisan works	3	-	12	-

Evidence from the peri-urban interface

One location for NRSP's peri-urban interface (PUI) research was Hubli-Dharwad, a twin city in Karnataka State, India. The research focused initially on improving knowledge and understanding of the PUI – how urbanisation affected rural resources, how nearness to urban development affected rural people's livelihoods, the gains and losses, especially for the poor. In 2001 the emphasis shifted to implementing new livelihood strategies, with priority given to those that were relevant to poor people. Strategies for income generation and other livelihood activities were based on the model of *sangha* (poor people's Self-Help Groups [SHGs]), which are divided by gender (women-only or men-only) and designed to act as group savings/credit mechanisms to provide micro-finance and, later, access to formal banking, to support livelihood activities. Six peri-urban villages participated.

Post-project impact study

In early 2005, a post-project impact study was conducted by consultants who were not involved in the original research. With just one month of fieldwork, a total of 80 households were surveyed in the six target villages comprising 40 poor households (equal male and female-headed, who all participated in SHGs) and a similar sample of 40 households who were not poor and did not participate in SHGs.

Focus group discussions and key informant interviews also were used to make comparisons between target and non-target villages. Livelihood impact was assessed in terms of changes in incomes, reduced vulnerability (such as improvements in food security, diversity of income sources, reduced risks), women's well-being and status, and natural resources (in terms of the sustainability of the NR-based components of villagers' livelihood strategies).

The study found strong evidence of poverty reduction. From 2001 to 2005, average household incomes increased by 41 percent, and those of poor households rose by 52 percent. This represented a significant increase in real incomes for the villagers in spite of consumer price inflation in India of 3-4 percent per year over the same period. Women realised a 58 percent increase in their incomes compared with 31 percent for men over the same time period.

The proportion of households considering themselves to be poor or poorest fell from about 65 to 40 percent. Data on livestock ownership and other assets also indicated that villagers were now better off. Food insecurity also fell. It affected only 49 percent of surveyed households in 2005 compared with 69 percent in 2001. Also, whereas nearly all poor households (95 percent) were at risk of food insecurity in 2001, by 2005 this had fallen to 70 percent.

But the basis for these livelihood improvements was not quite what the research had aimed to do. The aim was to reduce the vulnerability of villagers by developing their capacities to move into livelihood activities which, though still based on land and other natural resources, were better managed and targeted to the urban market. But the survey found that the proportion of household income coming from land-based activities actually fell from 61 to 57 percent while the proportion from non-land-based activities correspondingly rose from 39 to 43 percent.

A second research aim was to develop alternative livelihood activities for the urban market, especially among landless villagers – this was achieved. The dependence of landless people on non-land-based sources of income in the village had decreased, and their income from non-land-based sources in the city had increased (Table 3).

Table 3: Income sources of poor households (percent)

Source of income	2001	Early 2005
Land-based – own land	29	30
Land-based – common land	2	5
Non-land-based, village	38	26
Non-land-based, city	31	39

Importantly, the way in which the landless gained income from the city had also improved. Poor villagers, unlike their 'non-poor' counterparts, derived some of their income from working in the city as labourers. By 2005, the proportion of the total income of poor households that was earned by city-labouring had decreased from 37 to 32 per cent. It was replaced by income from other city-related sources. This indicated a reduction in the vulnerability of poor households as they became less dependent on unreliable casual work and developed alternative livelihood activities.

So people in the PUI, including the poor, with the help of access to micro-finance and other services, such as training, had gained from their proximity to the urban environment.

Poor households had built financial capital and there was strong evidence of the growth of savings by individuals and SHGs, improved access to credit, and displacement of moneylenders. And there were other livelihood-related changes. Human capital had improved linked with training in business and financial management and market appraisal for pursuing urban market opportunities. Social cohesion in participating villages was better and exceeded that found in non-participating villages. Linked with this, attitudes towards poorer members of communities had changed – some SHG members were elected to the *gram panchayat* (a local government body) indicating their acceptance as community leaders even though they came from poor households.

Improved natural capital

And what about natural capital? Did it improve or succumb to urban pressures? The views from target communities was that natural resources management had definitely improved for households and the community, through such things as water conservation measures and irrigation infrastructure, introduction of new crop varieties, and improved livestock. Higher returns to land made small-scale farmers less inclined to sell their land or lease it out for urban-related uses. This contrasted sharply with views in non-target villages where problems of top-soil loss, lack of satisfactory land and water management, and lack of profitability in agriculture were reported.

So there certainly was evidence of favourable livelihood and environmental impacts and also indications that these could endure after the research ended. And these changes had reached and included poor men and women. They had benefited and had developed assets that could help them to continue to do so.

Pro-poor livelihoods progress in eastern India

Since the first NRSP Research Highlights (1998-1999) there has been regular reports on the contribution of NRSP's research to the development of aquaculture as a livelihood enterprise for poor, marginalised farmers in the upland plateau region of eastern India. Examples are: using participatory research with poor farmers to develop a fish culture system for seasonal (rather than perennial) water bodies; policy change recommendations that can make it easier and more feasible for poor people to engage in aquaculture; and improved services that enable farmers to access the various inputs and support that they need at one service point (a One-Stop Aqua Shop). Some of the favourable changes in poor people's lives, linked with their adoption of aquaculture, have also been reported.

Assessing impact

But what about impact? Have changes occurred on a wider scale for poor people in the three states that administer the upland eastern plateau region (Jharkhand, Orissa and West Bengal) that can be linked with at least some of the outcomes of the seven years of NRSP's aquaculture research? It can be argued strongly that the answer is 'Yes, NRSP's research has had impact'. Three examples are shown in the box. They illustrate three levels of livelihoods impact – a change in a livelihood attribute; a project level assessment for one geographic area; and a village level example focused on one group of poor women.

There is a qualifier regarding this impact – it has arisen from the cumulative favourable outcomes of the mix of aquaculture research and use of the products of this research by state governments and development projects working in the eastern plateau region since the early 1990s, combined with other supportive government and NGO initiatives. So there is not a clear cut cause and effect relationship between the research and the impact. Rather, synergies between the various efforts are producing evidence of livelihood benefits that are beginning to accrue to poor farmers who engage in aquaculture.

The situation in the 1990s

Some of the poorest people in India live in the upland eastern plateau region. The majority are tribal people; others belong to scheduled castes. Both groups are poor, socially disadvantaged and marginalised. They farm small areas of upland which, at best, provide household food security for three months of the year. Because of this, many households rely on poorly paid local labouring for better-endowed farmers. Such work is highly seasonal and results in high and socially disruptive rates of migration. Men or whole families migrate in pursuit of other labouring jobs but earn, at best, only a few cents daily. Indebtedness to local money-lenders is a common burden, but an unavoidable part of life.

Evidence of progress – how it is now

The general scene: In 2000, an impact assessment of the Eastern India Rainfed Farming Project, which promoted aquaculture, found that the migration rate had substantially reduced – from 40-50 percent of all households in the early 1990s to 15-20 percent. In some places migration no longer occurred.

The project location finding: In 2005, a review mission of the Western Orissa Rural Livelihoods Project estimated that fish rearing within the project area was contributing to the livelihoods of about 12,000 people. Of all the activities that the project has promoted, villagers reported that aquaculture was the most profitable. A ledger entry of 2005, made available to the review mission by the Mallabhum Gramin Bank, supported the villagers' view – repayments of loans for livestock, agriculture, and aquaculture respectively were 58, 78, and 100 percent.

And in the village: In year 2000, some women weavers of Kandhkelgaon village, Orissa formed a Self-Help Group, *Jeeban Jyoti*. They knew that a large village pond (tank) could be leased for fish culture. But the lease was only for one year – too short to make it a worthwhile business venture. Then in 2003, *Jeeban Jyoti* found that the Orissa government had increased tank leases to five years. This made all the difference and they decided to try for the lease. There were difficulties, but with determination they got the lease and started rearing and selling fish. Two years later the group was running a successful business, their bank balance and cash flow were healthy. In the first year of aquaculture *Jeeban Jyoti* members have made individual savings of Rs 5,000 (US$110) which they have invested to provide income and life insurance.

Learning from achieving impact

While the three 'impact stories' illustrate livelihood benefits for poor people that can be linked with pro-poor NRM research, they also indicate some of the complexity and demands for achieving such changes. In the semi-arid lands of Tanzania, within poor communities, equity in access to water resources and opportunities to diversify livelihoods were issues that needed attention to assist broader and more secure progress in poverty reduction. In the PUI of Hubli-Dharwad, India, support services tailored to people's proximity to an urban environment, such as training in market appraisal, were important inputs for poor people's livelihood development. And with remote communities in eastern India, while the link between research and development projects helped wider impact, the research and promotional work that led to aquaculture policy changes were vital for enabling poor people to take their own livelihood initiatives. Having evidence (for donors and policy-makers) of how poverty reduction requires multifaceted work, that entails coordinated inputs from different development sectors and disciplines, with a longer term planning and funding timeframe, is equally as valuable as the evidence of impact.

R8116 Improving management of common pool resources in rainwater harvesting systems

PD138 NRSP Impact assessment case studies – Peri-urban interface suite 1

R8334 Promoting the pro-poor policy lessons of R8100 with key policy actors in India

NRSP Briefs

Synthesising research findings on critical development issues

Six NRSP Briefs present the findings of a series of studies that synthesised research on topics that cut across many different natural resources-based livelihoods in different countries, environments, and institutional settings such as climate change; common pool resources; gender; the peri-urban interface; the links between research, policy, and livelihoods; and communication for uptake promotion. The studies were undertaken at the end of the DFID Renewable Natural Resources Research Strategy (RNRRS) and covered NRSP projects and those of other RNRRS programmes.

Important lessons and key messages are derived that will benefit future research and policy and add value to the achievements of the RNRRS.

This article reviews four of the NRSP Briefs. All the briefs can be downloaded from the Bookshelf browser on the NRSP website.

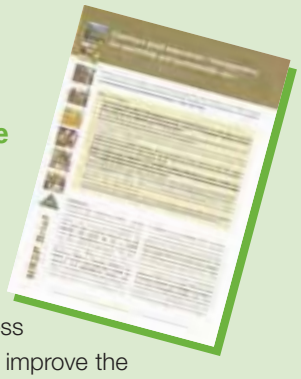
Climate change: enhancing adaptive capacity

Climate change threatens to damage ecosystems and the livelihoods of the poor who depend upon them. This Brief proposes a new strategy for research, based on a synthesis of 105 projects, which will add value to earlier research and address knowledge gaps and key questions.

The strategy is based on five research themes. The first four focus on opportunities for poor people to improve their capacity to adapt to climate change. The fifth theme recognises the importance of non-farm options in diverse and resilient livelihoods.

The Brief stresses the importance of developing links with regional partnerships (to ensure effective uptake) and between adaptation research concerning climate change and other activities within DFID. Engagement with policy processes, from local to global, are essential. A systems approach is advocated. Research should also be demand-led and build positively on peoples' capabilities rather than further analysing their vulnerability.

Common pool resources: management for equitable and sustainable use



Common pool resources (CPRs) – such as forests, water, fish stocks, and grazing land accessed by multiple user-groups – are crucial to the livelihoods of the poor. But their potential multiple uses and different user-groups can lead to conflict over their management and the poor often lose out to more powerful groups.

This Brief reports on the knowledge and lessons gained on pro-poor CPR management. It suggests that simple techniques, such as promoting consensus by increasing awareness among user-groups of other stakeholders' perceptions and objectives, can be applied to improve the equitable and sustainable management of CPRs. Social solutions too are important.

Simple technical changes can have significant effects if the right social solutions are in place. Decision-making on CPR management can also be guided by analysing CPR economic costs and benefits. The importance of equitable property rights are highlighted as a means of enabling poor groups to benefit from CPRs, particularly those based on traditional management systems.

At the local level strengthening community-based institutions can help the poor to engage with national policy-makers and enable pro-poor policy to be implemented. International agreements can also help local communities manage CPRs by working to transfer technical and financial resources.

Gender and natural resources management: improving research practice

Gender relations play an important role in the outcome of development interventions, and so gender-sensitivity is vital to successful research. An important finding highlighted in this Brief was that gender relations are often neglected.

This is not because researchers do not give them high enough priority, it is usually because they do not have the time and resources required to take proper account of the complex ways in which gender, natural resources management (NRM) and poverty interact. In such circumstances researchers tend to fall back on generalised and often incorrect stereotypes about gender roles and responsibilities. These mask the role of women and can hide the ways in which NRM varies over time and from place to place. Another finding was that working separately with single-sex men's and women's groups can be productive. It is important, however, that detailed research is carried out into understanding the position of the individual men and women involved. Generalisations such as 'all women are poor' are not necessarily correct, and can hide the exclusion of vulnerable individuals. The study points to ways in which participatory rural appraisal methods and community workers can be used more effectively to achieve more gender-sensitive research.

The peri-urban interface: intervening to improve livelihoods

The peri-urban interface is influencing the lives of increasing numbers of people around the world. As livelihood activities change from rural to urban, opportunities arise to help people manage this transition and successfully exploit new opportunities.

This Brief examines the changes in NR-based production and how these are linked with livelihoods and poverty at the peri-urban interface.

Some people found they were able to take advantage of new income-generating opportunities, while others were made poorer by the rural to urban transition. Poor people, especially women, were particularly disadvantaged. But interventions that support the poor can help. Although the land available for NR-based activities declines with the rural-urban change, these activities still remain important. So continued support for good NRM is critical. Farming and trading have crucial roles in peri-urban situations providing income and allowing new risk-taking ventures.

As increasing numbers of people are affected, governments, NGOs and other stakeholders need to be aware of the characteristics of the peri-urban interface so they can intervene effectively to help the rural poor make the transition from the rural to the urban economy.

Other NRSP Briefs

Linking research, policy and livelihoods: challenges and contradictions

This Brief is reported separately on p26 of this edition of Research Highlights.

Communication for research uptake promotion: learning from practice

Available from the Bookshelf browser on the NRSP website.

NRSP projects 2004-2006

Details of these, and earlier projects, can be found in the Project Database on the NRSP website www.nrsp.org.uk

India
R7830 – Integrated management of land and water resources for enhancing productivity in Bihar and eastern Uttar Pradesh

In India – Indian Council for Agricultural Research Research Complex for Eastern Region Patna

AK Sikka

India
R7839 – Livelihoods improved through improved crop and soil management

In UK – Rothamsted Research, University of East Anglia, and CABI Bioscience. In India – Indian Council for Agricultural Research Research Complex for Eastern Region Patna, Cirrus Management Services Pvt Ltd, and International Water Management Institute

John Gaunt

Nepal
R7958 – Developing supportive policy environments for improved land management strategies

In UK – University of Reading, GAMOS Ltd, and Silsoe Research Institute. In Nepal – Local Initiatives in Biodiversity Research and Development and Nepal Agricultural Research Council

Christopher Garforth

Kenya
R7962 – Linking soil fertility and improved cropping strategies to development interventions

In UK – Imperial College at Wye. In Kenya – Kenya Forestry Research Institute, Kenya Agricultural Research Institute, International Centre for Research on Agroforestry, Regional Research Centre Maseno

Colin Poulton and James K Ndufa

Bangladesh
R8083 – Strengthened rural services for improved livelihoods in Bangladesh

In UK – Rothamsted Research, University of Reading, and independent consultants. In Bangladesh – PRA Promoters Society, Agricultural Services Innovation and Support Project of the Department of Agricultural Extension, Bangladesh University Extension Centre, Forum for Regenerative Agriculture Movement, Dinajpur Rural Services, and Friends in Village Development

John Best

India
R8084 – Enhancing livelihoods and NR management in peri-urban villages near Hubli-Dharwad

In UK – University of Wales Bangor, University College London, and University of Birmingham. In India – University of Agricultural Sciences, India Development Service, Bhariaitya Agro-Industries Foundation Institute for Rural Development Karnataka, Development Research Foundation Dharwad, and Best Practices Foundation Bangalore

Robert Brook

Tanzania
R8088A – Promotion of and support to the use of the Parched Thirst Model v2.1 in East Africa and development of version 2.2

In Tanzania – Soil Water Management Research Group Sokoine University of Agriculture

Henry Mahoo

Tanzania
R8088B – Improved research strategies to assist scaling-up of pro-poor management of natural resources in semi-arid areas

In Tanzania – Soil Water Management Research Group Sokoine University of Agriculture, and Ministry of Agriculture and Food Security. In UK – University of Reading

Henry Mahoo

Ghana
R8090 – Boafo Ye Na - Who can help the peri-urban poor?

In Ghana – Centre for Development of People, and Kwame Nkrumah University of Science and Technology. In UK – Royal Holloway University of London

Korsi Ashong

Bangladesh
R8103 – Consensus for a holistic approach to improve rural-livelihoods in riverine-islands of Bangladesh

In UK – ITDG UK, University of Stirling, and independent consultant. In Bangladesh – ITDG Bangladesh, Rural Development and Social Mobilisation, and Unnyan Sangha Jamalpur

Stuart Coupe

Tanzania
R8115 – Improvement of soil management practices in rainwater harvesting systems

In Tanzania – Soil Water Management Research Group Sokoine University of Agriculture. In UK – University of Nottingham

Henry Mahoo

Tanzania
R8116 – Improving management of common pool resources in rainwater harvesting systems

In Tanzania – Soil Water Management Research Group Sokoine University of Agriculture. In UK – University of Nottingham

Henry Mahoo

India
R8192 – Enabling rural poor for better livelihoods through improved natural resource management in SAT India

In India – Central Research Institute for Dryland Agriculture, All India Coordinated Research Project for Dryland Agriculture Anantapur and Bangalore, Bhariaitya Agro-Industries Foundation Institute for Rural Development Karnataka, and International Crops Research Institute for the Semi-arid Tropics

KV Subrahmanyam

Bangladesh
R8195 – Integrated floodplain management - institutional environments and participatory methods

In UK – ITAD Ltd, University of Durham, and independent consultants. In Bangladesh – Center for Natural Resources Studies, World Fish Centre, and independent consultants

Roger Lewins

Kenya
R8211 – Understanding and enhancing youth livelihoods in rural East Africa

In UK – University of Reading, and ITAD Ltd. In Uganda – Matilong Youth Mixed Farmers Organisation, Department of Agricultural Extension and Education Makerere University, National Agricultural Research Organisation, National Agricultural Advisory Service, and District Agricultural Training and Information Centre. In Kenya – World Neighbours, Department of Agricultural Extension and Education Egerton University, National Youth Forum, and ITDG-Kenya

Kevin Waldie

Bangladesh
R8223 – A Learning and communications programme for PAPD

In UK – ITAD Ltd. In Bangladesh – Center for Natural Resources Studies

Ghana
R8258 – Informing the policy process: Decentralisation and environmental democracy in Ghana

In UK – Overseas Development Institute. In Ghana – Institute of African Studies University of Ghana Legon

David Brown and Kojo Amanor

India
R8280 – Incorporating stakeholder perceptions in participatory forest management in India

In UK – University of Cambridge. In India – Enviro-Legal Defence Fund, Institute of Economic Growth, Energy Research Institute, Winrock International, Indian Institute of Forest Management, and Sanket Information and Research Agency Bhopal

Bhaskar Vira

Bangladesh
R8306 – Better options for integrated floodplain management – uptake promotion

In Bangladesh – Center for Natural Resources Studies, World Fish Centre, and independent consultants. In UK – ITAD Ltd, University of Reading, MRAG Ltd, and independent consultants

Mokhlesur Rahman

The Caribbean
R8317 – Pro-poor policies and institutional arrangements for coastal management in the Caribbean

In Trinidad & Tobago – Caribbean Natural Resources Institute. In Barbados – Caribbean Conservation Association. In UK – MRAG Ltd

Sarah McIntosh

The Caribbean
R8325 – Policy-relevant knowledge on feasible alternative natural resource-based strategies for enhancing livelihoods

In Trinidad & Tobago – Sustainable Economic Development Unit University of West Indies and independent consultants

Dennis Pantin

India
R8334 – Promoting the pro-poor policy lessons of R8100 with key policy actors in India

In Thailand – Support to Regional Aquatic Resources Management Regional Office of Network of Aquaculture Centres in Asia-Pacific. In India – Gramin Vikas Trust Ranchi

Graham Haylor

Bolivia
R8362 – Validation and communication of a community-led mechanism for livelihood improvement of remote communities in Bolivia

In UK – University of Leeds, and Natural Resources Institute. In Bolivia – Acción Cultural Loyola Tarija, and Protección del Medio Ambiente Tarija

David Preston

Asia and the Far East
R8363 – Enhancing development impact of process tools piloted in eastern India

In Thailand – Support to Regional Aquatic Resources Management Regional Office of Network of Aquaculture Centres in Asia-Pacific and Network of Aquaculture Centres in Asia-Pacific. In India – Gramin Vikas Trust Ranchi. In Sri Lanka – National Aquaculture Development Authority. In the Philippines – Bureau of Fisheries and Aquatic Resources. In Indonesia – Directorate General of Aquaculture. In Lao PDR – Department of Livestock and Fisheries. In Cambodia – Community Fisheries Development Office. In Vietnam – Sustainable Aquaculture for Poverty Alleviation Ministry of Fisheries. In Nepal – Agriculture Information and Communication Centre

Graham Haylor

The Caribbean
R8364 – Promoting an holistic approach to agrochemical management in the Caribbean

In Jamaica – Pesticides Control Authority. In St Lucia – Caribbean Environmental Health Institute, Ministry of Agriculture, Inter-American Institute for Co-operation on Agriculture, and Coordinating Group of Pesticides Control Boards. In Trinidad and Tobago – Caribbean Agricultural Research and Development Institute. In UK – MRAG Ltd

Hyacinth Chin Sue

India
R8365 – Evaluating action planning for enhanced NR management in PU Kolkata

In UK – Institute of Aquaculture University of Stirling, and WRENmedia. In India – Institute of Wetland Management and Ecological Design Kolkata, Centre for Environment Management and Participatory Development Kolkata, Sociological Research Unit Indian Statistical Institute Kolkata, and Department of Fisheries Government of West Bengal

Stuart Bunting

Eastern and Central Africa
R8381 – Institutionalised scaling-up and uptake promotion of outputs from soil and water management research in east and central Africa

In Kenya – Soil and Water Management Research Network of Association for Strengthening Agricultural Research in eastern and central Africa, International Crops Research Institute for Semi-Arid Tropics, and Kenya Agricultural Research Institute. In Ethiopia – Ethiopian Agricultural Research Organisation. In Sudan – Sudan Agricultural Research and Technology Corporation. In Tanzania – Tanzania Department of Research and Development, and Soil Water Management Research Group Sokoine University of Agriculture

Nuhu Hatibu

Nigeria
R8390 – Needs assessment and uptake promotion of RWH research in Nigeria

In UK – University of Newcastle. In Nigeria – Department of Agricultural Engineering Obafemi Awolowo University

John Gowing

Kenya
R8400 – Advancing the use of the products of NRSP's past and current research projects in eastern Africa

In Kenya – Kenya Forestry Research Institute Regional Research Centre Maseno. In Uganda – Kawanda Agricultural Institute, and African Highlands Ecoregional Programme

James Kamiri Ndufa

R8491 – Synthesis of peri-urban interface knowledge on NRM and alternative livelihoods

In UK – Development Planning Unit University College London, and independent consultant

Michael Mattingly

R8492 – A synthesis of communication products and practices across the RNRRS

In UK – ITAD Ltd, and independent consultant. In Bangladesh, Uganda and the Caribbean – independent consultants

Pat Norrish

R8493 – Policy processes and institutions in NRM – lessons from NRSP research

In UK – University of Sussex, and independent consultant

Elizabeth Harrison

Uganda
R8494 – Tracking social capital outcomes and sustainability of local NRM policies

In Uganda – African Highlands Ecoregional Programme

Pascal Sanginga

Bangladesh
R8495 – Promotion of sustainable institutions for integrated floodplain management

In Bangladesh – Center for Natural Resources Studies, and independent consultants. In UK – independent consultants

Mokhlesur Rahman

R8496 – Synthesis of RNRRS knowledge on adaptive capacity to climate change

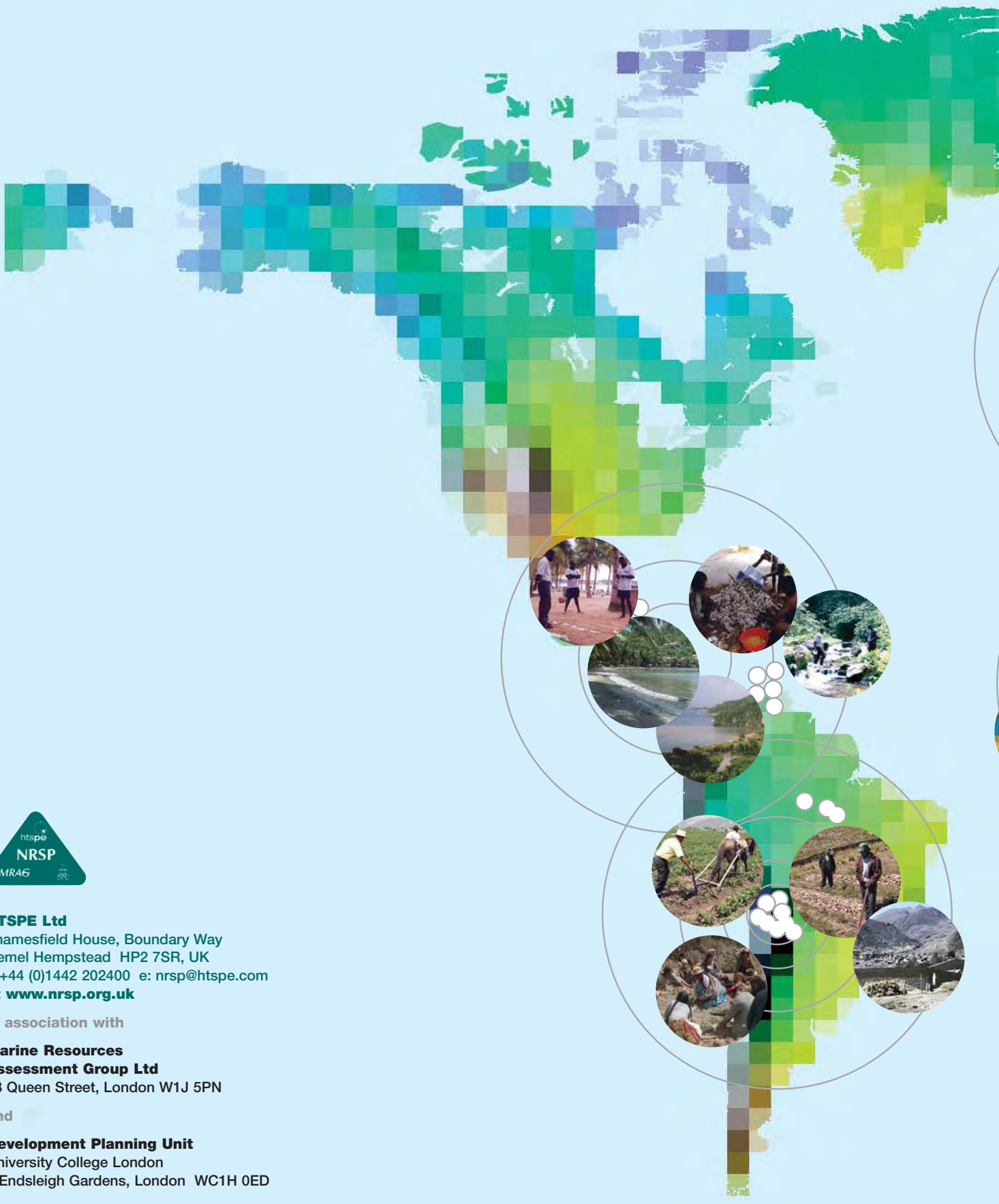
In UK – Drylands Research, and independent consultant

Michael Mortimore

R8501 – Synthesis of new knowledge generated by RNRRS research on common pool resources

In UK – Centre for Ecology, Law and Policy University of York

Jon Lovett



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