

Effective Policy Advocacy: An RNRRS Synthesis

This synthesis paper is one of a series that has been developed to assist research managers use the key lessons learnt between 1995 and 2005 from natural resource research and implementation under the Renewable Natural Resource Research Strategy (RNRRS), funded by the UK Department for International Development (DFID). The aim of these papers is to provide practical guidance to enable institutions and research projects incorporate these lessons into their current and future programmes.

In the absence of other indications, the main audience for these RNRRS syntheses are assumed to be the managers of the sub-regional networks for research on renewable natural resources, such as:

- *ASARECA, CORAF/WECARD and SADC/FANR under the umbrella of the Forum for Agricultural Research in Africa (FARA) and allied to the Comprehensive Programme for African Agricultural Development (CPAAD) of the AU/NEPAD;*
- *Asia-Pacific Association of Agricultural Research Institutions (APAARI);*
- *The equivalent regional networks for forestry/agroforestry research – AFORNET and FORNESSA in Africa, APAAFRI in Asia and RIFALC in Latin America;*
- *The equivalent regional networks for fisheries and wildlife research.*



Major Lessons Learnt

- **Policy Engagement:** research teams need to identify and gain access to the right political decision makers, which are problem specific, at the most opportunistic times.
- **Policy Communication:** one size does not fit all; promotion processes must be carefully targeted.
- **Interdisciplinary and Intersectoral Requirements:** natural and political scientists should be included at appropriate stages of project planning and implementation, as determined by local contacts within the policy domain.
- **Culture and Policy:** the variety of cultural dynamics means that local political scientists must be included in the project team.
- **Long Term Nature of Policy Shaping:** policy advocacy should not finish at the same time as the fieldwork to achieve maximum policy reform.

This paper has been structured to enhance reader accessibility. If readers are short of time they are recommended to read the two yellow, double-lined text boxes first (on this page and page 10). Throughout the main body of the paper, the flag symbol (🚩) signifies the most important parts of the synthesis. The case study clusters have been located after the main text so that they can be read separately.

WHY INCLUDE POLICY ADVOCACY IN PROGRAMMES OF RESEARCH-FOR-DEVELOPMENT?

A typical point at which to complete research-for-development programmes is the publication of research findings in international peer-reviewed journals and books. The difficulty with this is that the majority of people involved in development activities do not have much time to read research journals. Consequently, if policy recommendations finish at the point of simply publishing academic papers then it is highly unlikely that these recommendations will reach policy makers. Active policy advocacy is essential to ensure that outputs are taken up throughout the policy recommendation domain¹. There is a common fallacy that policy change is exclusively a part of dissemination. This suggests a more passive activity than is required in reality for policy change. Policy advocacy needs to be highlighted because of the overall unfamiliarity with the concept and the current scarcity of its inclusion within research teams.

Advocacy in this synthesis is understood to be the deliberate process of influencing, through targeted actions, those who make policy decisions.

It is possible to wait for the gradual expansion of research efforts since renewable natural resources research is often undertaken at specific sites. These studies could be replicated and gradually extended to cover the recommendation domain but this would be a lengthy and costly process where the outcome is largely left to chance and market forces.



In general, programme planners and managers anticipate market forces and farmer-to-farmer diffusion to circulate research outputs into the recommendation domain. However, because the research for the poor cannot, by definition, be paid for by the poor, there is no profit for commercial enterprises to undertake the research. There may be specific profit making opportunities such as delivery of agrochemicals or government-sponsored training for the application of research results. Likewise, there are specific cases where farmer-to-farmer diffusion works adequately to spread the use of new field technologies. Nevertheless, neither market forces nor farmer-to-farmer diffusion can provide the means to change policies at a national or international level on issues such as taxes, subsidies or institutional structures including market arrangements. The poorest people do not have the means to engage and influence policy makers in the way that other groups, such as wealthy landowners or corporations, are able to do.

Research findings need to influence policy in order to ensure that the benefits of findings are institutionalised and form part of the mainstream message targeted to the eventual end-users. Without this, research findings run the risk of staying on the fringe, with considerable difficulties in expanding uptake. Policy advocacy is thus the essential link that ensures research results enter the policy domain.

Bringing about policy changes requires the right conditions to be already in place. Key elements that are required include:

- a) Raising awareness of a soluble problem.
- b) A belief that change is feasible, both technically and politically.
- c) An understanding of change processes.

¹ The domain is the area where the researchable constraint is a brake on development and the area where application of the research outputs should cause measurable improvements in local livelihoods

- d) Access to policy shapers or policy makers. (A policy shaper is anyone, both inside and outside government, who has a direct impact on policy development and will vary according to the issue and the country).
- e) Mechanisms for effecting change.
- f) Availability of suitable change mechanisms.
- g) Sufficient political will.

Some of these elements, such as (e), (f) and (g), are unlikely to be influenced by research inputs. However, by challenging the barriers to entry as shown below, researchers can help to achieve the first four of these conditions.

There are many different potential barriers for policy advocacy including political interference and priorities, budgetary constraints, donor pressure, regional/ethnic biases, legal constraints and cultural issues. Project managers need to use a range of approaches to be effective at linking policy modification and advocacy.

Researchers often regret the fact that they appear to have little direct influence on policy, and in return policy makers blame researchers for providing information at the wrong time and in an inaccessible form. If the impact of research on policy development is to be improved, the nature of the relationship between research and policy formulation needs to be better understood.

As the case study clusters show, influencing policy is not simply a case of making certain policy makers more aware of research outputs. FRP has commissioned a training manual¹ on communication methods and scientific advocacy, which is available in English or Spanish online at: http://www.frp.uk.com/project_dissemination_details.cfm/projectID/8121/projectCode/ZF0147E/disID/4094

Although not part of the RNRRS, one example of inadvertent policy effects is in India where free or heavily subsidised electricity has encouraged a spread of irrigation (using submersible pumps in boreholes) for dry season crops into areas that would not otherwise support such crops. The very high rates of evapo-transpiration from these crops tend to deplete the groundwater level. Poor farmers and households who could previously obtain domestic and garden water from hand-dug wells now have to buy water from tankers because of the decline in the water table. The effect of the policy of free electricity, intended to put power into houses and villages, in effect has further impoverished the poorest villagers due to a lack of an holistic approach to management of water supply and demand.

The aim of this synthesis is to give clear guidance on how five key barriers to uptake of research outputs have been dealt with in the RNRRS programmes and how this experience can be applied to develop policy advocacy within the natural resources sector. Three case study clusters have been selected to highlight the policy and advocacy linkage issues discussed throughout the paper. This synthesis paper draws on the experience of research projects from DFID's Forestry Research Programme (FRP hydrology cluster), Livestock Production Programme (LPP landless livestock keeper cluster) and Crop Post-Harvest Programme (CPHP street food cluster). The research clusters used as case studies were selected as examples of successful or significant engagement with policy makers. Reasons for success are analysed and areas for improvement highlighted.

FRP has been the most proactive programme in the field of policy and advocacy within the RNRRS, but other programmes such as LPP and CPHP have increasingly integrated

policy advocacy elements within their projects. *(Further information on all projects can be found on the programme websites listed in the case studies and the DFID research portal).*

FIVE BARRIERS TO POLICY UPTAKE

1. Policy engagement

Policy engagement is concerned with how research can make an impact and change existing policy.

It is not enough to decide that a project must seek to 'engage' with policy decision makers, as the effectiveness of policy advocacy also relates to:

- Identification of policy shapers and influencers
- Stakeholder inclusiveness
- The timing of policy interactions
- Staff personal skills

Policy makers need to know what contribution research can make to policy making. Researchers can find out what policy makers need to know through interaction with policy shapers and makers, as shown in the case study clusters. The research team needs to assess the available mechanisms for creating policy change in their sector and country, region or internationally and how they can be accessed. It is important to understand the differences between the varying scales of policy making whether at national, regional or the international level and what difference this makes in terms of policy recommendations and uptake. Each level of policy making will have different policy makers and shapers as well as different mechanisms. The research team should also understand what decisions policy shapers are conveying as options to the decision makers and how they can interject their outputs into the process.

To achieve successful policy engagement the project management team must identify the key political decision makers; the FRP and LPP case study clusters demonstrate this point:

- Through the International Food Policy Research Institute (IFPRI) newsletter, the hydrology cluster was able to publicise an interview with the Prime Minister of India, Dr. Manmohan Singh, in which he noted the main issues being tackled by the FRP cluster, particularly the components operating in India.
- The LPP case study shows an innovative method of policy engagement by using Members of Parliament in East Africa (Livestock Parliamentary Groups) who come from constituencies that have pastoral development interests.

The case study clusters show that it is important to work alongside policy shapers and makers during the lifetime of a research project. The two advantages of such an approach are to build up an effective relationship with decision makers and to time policy inputs so that they occur at the most opportune moment and are most likely to be implemented. Ideally a twin-track approach should be developed so that policy shapers as well as policy makers are targeted.

FRP management has noted that past project successes in influencing policy have often been dependent on chance meetings with political Ministers in immediate need of guidance or the chance matching of research project cycles with election cycles. Whilst it is important to capitalise on unplanned opportunities, long-standing or perennial problems need a more systematic approach.



One difficulty in getting policy engagement and timing right is that the scientific results on which change should be based may not be available with confidence until late in a research project. In effect it is not usually possible to time research so that it is sequenced with policy cycles, except by chance. However the use of topic clustering can help with managing this aspect. For this reason, policy engagement should be a longer process than the fieldwork element of a project and this needs to be incorporated by donors into project planning. As this synthesis demonstrates, the interlinking and long-term nature of natural resources research projects means that it is important for policy advocacy to be considered both as an integral part of project management as well as a post-project consideration. The timing of inputs is crucial to ensure that policy makers are caught at the most appropriate time for them, to maximise the opportunity for policy reform. However, this may not be the best timing for project management. This means that some of the greatest potential policy advocacy impacts may be missed as projects may be completed before much of the advocacy can take place. This explains the comparative success of the longer running and interconnected 'clusters' of projects and the benefits of continuous engagement, which can be shortened by clustering and professional management. Indicative scenarios ought to be thought through early in the project to provide the "hook" with which to catch and hold the attention of policy shapers. Ideally the project will be working on problems that are significant to policy shapers and decision makers. However, utilising long-term scenarios (as shown by FRP) may show no self-evident connection; consequently the project needs to explain the chains of cause and effect.

Policy engagement is not just about national decision makers. Equally important is the need to engage effectively with decision makers and stakeholders at the regional and local levels. For instance, a negotiation support system enabled downstream consumers and users of water (in the water case study) to negotiate equitably with upstream land managers who had non-monetary preferences for particular land uses; such as culturally-important vegetation types in particular places, or particular seasonal practices, or livestock herd sizes or compositions.

As well as identifying key political decision makers and shapers it is important to identify and incorporate into the project team the most appropriate staff to engage with policy makers. This may or may not be the senior project manager depending on their personal characteristics. Research needs to be perceived as credible as well as useful for policy shaping, as people believe information from sources they trust and that have a proven track record. Effective policy advocates will make the most of politically-linked networks. Successful advocates have an ability to seek and win modest but strategic policy gains while creating more opportunities for larger victories. They also show creativity, humour, an ability to respond rapidly to seize opportunities and

an ability to build good relationships with people. Personal dynamics and the choice of interaction type (such as casual, formal, presentation, meeting or conference) can be a significant part of building good relationships between the research team and policy shapers.

Project staff in bio-physical-technological research are generally unused to considering advocacy as part of their operations or skill set. Project teams therefore need to be trained in advocacy processes and techniques so that at least some team members can own and continue advocating research outputs well after the project has finished. Currently, where advocacy work is carried out, it is largely done at the direction of programme management and/or by programme management.



The lesson to learn here is that policy advocacy needs to be integrated into the design and within the project processes rather than relying upon programme management.

FRP is the programme that has taken the lead in policy and advocacy work and has committed substantial resources to achieving policy engagement. This is an aspect that can be particularly difficult to fund within research programmes, as it may be perceived as a development rather than a research function. More important than funding difficulties is the fact that policy advocacy is perceived as detracting from scientific objectivity and balance. Moreover no research credit is given for pursuing policy advocacy.

2. Policy Communication

The development of appropriate forms of communication at all levels is a key element of effective policy engagement and advocacy.

Knowledge dissemination to policy audiences has mainly been carried out by inviting policy makers to workshops and involving them in project discussion meetings from project formulation and implementation to presentation of the results. These interactions have been useful in informing the policy audience of research results and uptake strategies.

Conferences achieve maximum impact once sufficient professional working relationships have been established. However this approach alone is often insufficient for successful policy adoption. Within the RNRSS programmes there has been an increasing recognition of the need for information dissemination and interaction targeted specifically at key stakeholders. The method of communication development has varied within programmes and projects, demonstrating the need to apply appropriate targeting.

The physical formats of the communication materials are as

important as the methods of dissemination. Several programmes, particularly FRP, have responded to the continued demand for syntheses of research findings in monographs, manuals, handbooks and guides. For more complex problems, decision or

The Shimla Conference (August 2004) within the water cluster is a good example of how conferences can be effective when initiated by research. Although the FRP project R8171 had initiated the conference and had a supporting role, the project team was not perceived as driving the content or outputs.

In Uganda (FRP project R6057) a conference was held to resolve conflicts between wildlife management and farmers which coincided with a Ministerial need for specific guidance. The Ministry in Uganda directly implemented one conference output.

negotiation support systems are helpful. These may be as simple as graphical flow charts or as complex as computer-driven systems. Dissemination media can vary according to what is appropriate within the project context and ranges from posters to television broadcasts.



For multiple categories of stakeholders, a series of face-to-face meetings with policy shapers may be more productive than relying on the written word. This is especially so when some stakeholders are not used to reading and interpreting long or complex documents. For example, where research has affected the development of quality assurance standards, with some of the affected parties unfamiliar with the semi-legal language of the International Standards Organization, oral explanations backed by paperwork have proved more productive than paper by itself. Budgets also need to be extended to cope with culturally appropriate but lengthy policy shaping debates. It is unlikely that a research budget alone can meet this need. Multiple strands of funding may therefore be needed to keep research project staff at the policy shaping discussions.

3. Interdisciplinary and Intersectoral Requirements

Many research outputs tend to be expressed in a technical manner, and are technical in nature. Such outputs can therefore be difficult to translate into direct policy actions and recommendations for decision makers.



For optimum policy uptake, multidisciplinary teams including political and natural scientists are important to ensure that specialised knowledge relevant to policy makers can be translated into workable policies.

The inclusion of political scientists (and related disciplinary specialists such as economic anthropologists) is an element that can easily be overlooked when determining the composition of research teams. Timing is also crucial: these specialists need to be brought in at the optimum point in the project but not necessarily for full-time work. Compilations such as the DFID “influences” paper in Bangladesh are invaluable to research teams in identifying key actors in policy shaping.

The hydrology cluster outputs demonstrate the potential to further develop user-friendly predictive models of water supply in relation to land uses. These models can be used to simulate the effects of changing land use on water supplies, water demands and livelihoods. To be effective, hydrologists need more interaction with policy shapers in agricultural planning and hydropower generation to learn, for example, what user operated on-screen variables would be most useful. The technical part of the team needs to offer to the policy shapers tools and games that they can themselves readily use and take ownership. Examples are easy-to-use interactive simulators.

Turning interest in project outputs into new policies is a long-term task particularly if the use of intersectoral task forces or integration of scientists into policy forming teams is unusual. Identifying the key players, and securing their interest and commitment to participate, is a major task for which traditionally constituted research teams may be

poorly suited. These difficulties can be overcome if the correct strategies are put in place. For example FRP arranged for expertise to be brought in from the Research and Policy in Development (RAPID) programme of the Overseas Development Institute, to help demonstrate the value of non-traditional intersectoral negotiation for improved water management in India. This was also aided by the involvement of Winrock International India, which has good intersectoral and central government - state government links. Potential and actual project leaders are now advised in FRP's standard supplementary notes to contact ODI/RAPID for expert advice in this area.

4. Culture and Policy

Political, cultural, and historical factors all play a part in policy uptake. There is no specific hierarchy among these factors, as it depends on the context and the issue. It is important to understand the nature of policy making and whether the research team is trying to change policy makers' perception of facts or beliefs or whether existing policy is based on other factors such as religion, ethnicity or professional mythology. The basis on which policy is formed upon should influence the manner in which researchers engage with policy makers.



The LPP case study cluster shows where the same technique in different contexts may have varying levels of success. The focus group methodology incorporating policy makers and marginal groups worked well for urban landless livestock keepers in Uganda but not with pastoralists in India, largely as a result of cultural and historical influences.

The historical background to a research project may make it difficult to pursue policy advocacy. For example, one of the FRP's hydrological projects includes socio-economic studies of livelihoods in upper water catchments, which are progressing in theory and practice, payments for forest-based environmental services (PES). However, a long history of perceived broken promises by government departments and agencies has left local farmers unwilling to participate in government-mediated PES because they do not trust that they will be paid at rates which compensate for the loss of their own decision-making over land use.

The hydrology cluster case study demonstrates the implications of culture and politics in relation to policy advocacy. Some situations may be particularly sensitive. For example, in India, the large numbers of suicides of poor farmers in some States, following crop failures in rainfed areas and lack of alternative livelihoods, have made water management a sensitive political issue. The fact that numerous government agencies have responsibility at State level or below for some aspect of the management of water supply or demand, together with the block votes of richer farmers at election time, make it politically difficult to implement reform measures.

Communicating the results of the hydrological work in forms that could be understood by policy shapers is difficult, partly because many people find the results counter-intuitive and certainly counter to long-repeated beliefs about the benefits of trees in water catchments.



The lesson here is that research managers need a variety of compelling arguments to change beliefs to suit different circumstances.

It may be more difficult to change beliefs when they have weak foundations than where the foundations are science-based, because they are liable to be more emotively-based. Such beliefs provide part of the rationale for major rural development projects, especially in China and India, where they can act as an important constraint on policy development. The need to overcome ingrained and unsubstantiated beliefs demonstrates the importance of incorporating the type of proactive policy advocacy approaches highlighted in this paper.

5. Long-term nature of policy shaping

Policy shaping may be a long-term venture in the natural resource domain, including collaboration within and between projects, stakeholders and donors. Many research projects seek to use the 'ripple effect' as a way of spreading technology out across the landscape through farmer-to-farmer contact or more formal extension processes. However, policy by its very nature involves step changes that can require long-term involvement to build up to that point. Clustering of related projects is one strategy that provides the variety of inter-related evidence to justify policy change.

Long-term linkages depend on staff stability. Staff movement within NGOs tends to depend on changes in donor funding, while staff changes in developing country National Agricultural Research Systems can be substantial due to attrition, promotion and geographic gap-filling. Difficulties associated with a lack of continuity of data and personnel also link to the nature and comparatively short length of many RNRSS projects relative to the pace of policy shaping and legislation in developing countries.



Lessons to learn from the long-term engagement of FRP management in forest certification and FLEGT (Forest Law Enforcement, Governance and Trade) issues are:

- Round-table meetings need to be carefully planned with enough, but not too much, detail in advance.
- Research-based detail should be ready to hand to bolster arguments.
- A willingness to brief and re-brief occasional attendees.
- Be prepared to spend half of each stakeholder meeting bringing all participants up to speed on past decisions and current progress.
- Accept that negotiations tend to proceed at the pace of the slowest participant.
- Continuity of participation is important in policy shaping; this may be difficult for research teams whose members have mostly switched to new subjects and new grant opportunities.



IMPLICATIONS ON RESEARCH DESIGN FOR DONOR AGENCIES AND NATIONAL RESEARCH SYSTEMS

First-order Implications

- Pursue active policy advocacy to ensure that research outputs are taken up throughout the policy recommendation domain. (A)
- In implementing project outputs, seek to change policy to counter market failures. (P)
- Integrate policy advocacy into the design and within project processes rather than relying upon programme management. (A)
- Understand the nature of policy making and whether projects are seeking to change policy makers' perception of facts or if existing policy is based on other factors such as religion, ethnicity or professional mythology. (P)
- Target promotion processes carefully. In policy communication, one size does not fit all. (P)
- Continue policy advocacy after the completion of fieldwork. It is important to work alongside policy shapers during the lifetime of a research project. (A)
- Monitor and evaluate policy at least as much as in the technical areas of research projects. The lack of work in this area, perhaps due to the constraints of the positioning of the RNRRS within the research-development-application continuum, became apparent during the DFID external evaluation conducted in 2004. (A)

Second-order Implications

- Formulate research findings in a manner that can best influence policy. (A)
- Identify and access the right political decision maker at the most opportunistic time. The timing of inputs is crucial to ensure that policy makers are caught when it is right for them, to maximise the opportunity for policy reform. (P)
- Include natural and political scientists at appropriate stages of project planning and implementation. The variety of cultural dynamics means that local political scientists (and related disciplinary specialists such as economic anthropologists) must be included in the project team, possible on a part-time basis. (P)
- Develop a variety of compelling arguments for research managers to change beliefs to suit different circumstances. (A)

Third-order Implications

- Establish professional working relationships before formal interactions such as conferences between research staff and policy makers to achieve maximum impact. (P)
- Train project teams in advocacy processes and techniques so they can own and continue advocating research outputs well after the project has finished. Project staff are generally unused to considering advocacy as part of their operations or skill set. (A)

Key: (P) a principle to adopt
(A) an activity (or way of working)

FRP: HYDROLOGY CLUSTER CASE STUDY

<http://www.frp.uk.com/>

http://www.frp.uk.com/assets/Water_book.pdf

APPROACH

This cluster encompasses eight projects, which geographically cover Costa Rica, Grenada, India, South Africa and Tanzania, as well as a global approach. Four (*) of the eight have been drawn upon in this synthesis:

- ZF0146 – preparation of background papers and two technical workshops to plan this cluster for hydrological and linked socio-economic studies
- *R7937 – *Resource focused catchment management* linked people and their livelihoods with hydrology research, enabling household level economics to be integrated into catchment management decisions in South Africa, Tanzania and Grenada.
- *R8171 – *Management of upper water catchments, especially in dry forests in India with low base flows* extends the work conceptually and geographically.
- *R7991– *Management of upper water catchments* dealing with cloud forests in Costa Rica
- *R8174 – *Socio-economic aspects of catchment hydrology* in Costa Rica and India
- ZF0176 – *Coordination of the project clusters for improved management of upper water catchments, including policy work*
- ZF0203 - *Press coverage for the launch of the book 'From the mountain to the tap'*
- ZF0216 - *Global cloud forest hydrology context and rainfall hotspot mapping*

The advent of new methods for research such as improved instrumentation and data-logging as well as much more powerful computer modelling and geographic information systems has allowed more precise predictions to be made. Results can now be made more meaningful to policy shapers.

BARRIERS TO POLICY UPTAKE

Policy Engagement

One reason for the overall successes of these projects has been the competence of the group of international and in-country collaborators in making contacts in the policy circles. For example, project R7937 has been credited with assisting significant

Successful engagement may result in tremendous political leverage i.e. just under £2 million of research funding has redirected £250 million worth of development projects in Karnataka in India alone.

changes to water policy in South Africa. An extremely diverse group of collaborators included Government officials, representatives from Universities, NGOs and communities. The Minister of Water Affairs and Forestry attended the final workshop as a participant. Another example is in India where the management of water supply and demand has been highly fragmented. The development of a communication network between researchers and policy makers provided the scope for good policy and livelihood impacts.

A key problem in Costa Rica with the PES (payment for forest-based environmental services) has been the lack of sufficient inclusion of the smallest-scale farmers. These farmers, due to the size of their holdings, their lack of land title and the administration difficulties within the scheme, lack political power and the means to communicate with policy makers. The financial returns have also been assessed as being lower for PES payments than for coffee or livestock land-use.

Policy Communication

There has been a marked move to using professional services in dissemination materials, such as the employment of a science journalist to assist with the preparation of research summaries in popular language in pamphlets and in cluster booklets rather than leaving such activities to individual project teams, as was the case in the past. The design and readability of the materials now being produced has greatly improved. However, this is been at a cost of substantial inputs of programme management time and not all the cautious scientists approve of the simplification of complex and qualified arguments. These new forms of research outputs have been popular with members of the Westminster Parliament.

Articulate staff willing to popularise the project process and outputs with policy shapers are an important facet of effective policy communication. ZF0203 achieved global Press coverage (over 70 items in more than 30 countries) for the launch of the booklet summarising the four main projects in the FRP hydrology cluster, including an article in The Economist and outputs in 9 languages.

One lesson learnt here was that different levels and interests amongst the audience may react very differently to the same set of facts. This difference was particularly marked amongst the journalists. There were also the expected differences amongst international and national forest services.

Communication between government departments in India can be difficult, but at the Shimla workshop in Himachal Pradesh in August 2004, financed through R8171, more than 40 state and central government departments were represented. Since then, the State government of Himachal Pradesh has taken steps to create the Water Resource Management Council, chaired by the Chief Minister, to ensure that an integrated approach to watershed management is adopted in the state. The potential for replication and 'ripple effect' can be demonstrated by the fact that CLUWRR and ITT Delhi are now planning workshops and other activities for autumn 2005 to discuss water management in the States of Madhya Pradesh, Orissa and Karnataka.

Interdisciplinary and Intersectoral Requirements

A notable element of success in the hydrological series has been the range of disciplines fully engaged within the science-development-economics continuum. However the earlier involvement of more policy shapers and the inclusion of policy scientists should have improved the level of success.

In India, one of the difficulties for policy makers involved in watershed management programmes has been that field responsibilities are spread between various technical government departments, many of which use different data sets. Furthermore the implementation of integrated land and water management policies is hindered by

disparate administration. Several central government ministries including the Ministry of Agriculture, the Ministry of Rural Development and the Ministry of Environment and Forests, as well as departments at national, state and local level are involved in the planning and implementation of water management policies². This division of responsibilities shows that intersectoral communication and linkages are needed for project results to be maximised in the political environment.

The concept of streamflow reduction activities was not introduced into Tanzania because it was felt that the policy and legislative environment were not conducive for project success due to the lack of integration between land-use and water management policies. In contrast in Kenya, reform of water management has been obstructed by corruption within and between Ministries.

Culture and Policy

Although project R7937 achieved success in South Africa the result were more far reaching in terms of beneficiaries in Grenada than in South Africa. This was partly because Grenada is a small community whereas in South Africa the project operated in a more complex political environment, as the focus was more on the overriding principle of equitable allocation rather than allocation based on hydrological criteria. In South Africa it was evident that focussing on streamflow issues alone were unlikely to reduce poverty unless other integrated development initiatives were developed.

Long-term nature of Policy Shaping

The Costa Rican project demonstrates the need for policy communication and inclusiveness, particularly over the long-term. When reviewing the first national scheme in Costa Rica for payments for environmental services in the Arenal watershed, the project team noted that no payments were given to the majority of producers without formal land titles and that there was little involvement from small and medium sized landowners due to the long-term nature of the contracts. Yet, the project researchers were confident that the Costa Rican payment for environmental services scheme could be made valuable to small-scale producer rather than solely to landowners. If small-scale operators, downstream users and government institutions were able to negotiate together then the small-scale producers could benefit.

² Amezaga, J, Gosain, A, Gupta, R, Saigal, S and Wilson, V (2003) A review of water management, watershed development and forestry policy in India, Internal Report1. Winrock International and the Indian Institute of Technology Delhi, India and CLUWWR, University of Newcastle upon Tyne, UK. FRP R8171

Additional Lessons learnt across the water suite that could be applied throughout RNRRS include:

- Making sure policy instruments are equitable in terms of livelihood benefits, not just water (or other resource) allocation. The poorest in society do not have land, livestock or other assets and therefore do not reap much benefit from increased water flows downstream or market mechanism grants for land management upstream. By addressing land distribution policies side-by-side policy makers can make sure that the rural poor are able to use increased water supplies for crops and livestock, thus providing an income for housing, schooling and other livelihood benefits.
- Making sure that any proposed market mechanism is adequately pro-poor. For example if land tenure is preventing the very poor from accessing market mechanism payments, some resources could be channelled into a community fund.
- Using negotiation support system techniques such as 'choice experiments' to ascertain stakeholder preferences for policy agreements. Rigorous statistical analysis of stakeholder preferences can help minimise any room for disagreement between governments, farmers, villagers, water companies and other industries when formulating land-use and water management policy.
- Tailoring employment programmes to dovetail with other livelihood activities of the people they are intended to attract. In order to ensure that the rural poor are effectively self-selected, any pro-poor employment programme should set daily wage rates to match local minimum wage rates and should provide short-term contracts during seasonal 'hungry periods'.

CONTINUING THE PROCESS

FRP has provided seed funding for a new project 'Furthering land and water policies' improving outcomes'. The core challenge of this new project is to improve water governance based on the way in which water and land-use policy decisions are made.

FRP will continue to promote face-to-face networking between scientists and policy makers, interactive workshops and electronic communication via e-fora and on-line journals such as Land Use and Water Resources Research (www.luwrr.com). The project will continue to work with policy makers in South Africa and India, where it will contribute to improving water management through the US\$71 million DFID and EU-funded rural livelihoods project in western Orissa and World Bank-funded watershed development and reservoir rehabilitation projects in Karnataka.

The research team is making new connections in China, where large-scale afforestation is taking place under national environmental forestry schemes and will influence a wide range of international donor and research institutions.

Building on previous experience the team will develop an improved toolbox of methodologies for integrated land and water management. This will include a negotiation support system toolkit for policy makers, tailored for local use.

LPP LANDLESS LIVESTOCK KEEPERS AND CONFLICT RESOLUTION CASE STUDY

<http://www.lpp.uk.com/>

APPROACH

This case study cluster primarily uses the Landless Livestock Keepers cluster but for comparison uses other projects such as ZC0256. These projects encompass India, Bangladesh, Nepal, Bolivia, Ethiopia, Kenya and Uganda:

- ZC0181: *Pastoralism in India: A scoping study*. The culmination of this project was to bring together a wide range of stakeholders from policy makers to pastoralists in Gujarat and Rajasthan to try to ameliorate the severe impacts of inappropriate policy on this marginal group.
- R8109: *Using livestock to improve the livelihoods of landless and refugee-affected livestock keepers in Bangladesh and Nepal*, with the aim of making the insights of the project accessible to stakeholders and policy makers in both countries.
- R8110: *Livestock and urban livelihoods: developing appropriate extension dialogue with the landless*, identified and tested pathways for uptake of livestock extension dialogue and created a forum for linking agents and actors working in urban livestock production at local and national levels (Bolivia, Kenya, India)
- ZC0201: *Urban and peri-urban livestock study in 5 East African cities* (Addis Ababa, Kampala, Kisumu, Nairobi and Dar es Salaam)
- ZC0256: *Legislators and Livestock: A comparative analysis of pastoralist parliamentary groups in Ethiopia, Kenya and Uganda*. The objective of the project was to assess the circumstances in which pastoralist parliamentary groupings can be an effective lobby for pro-poor, pro-pastoralist policy change, and what external assistance they required in this role.

BARRIERS FOR POLICY UPTAKE

Policy Engagement

Effective partnerships with all elements of livestock keeping have been created in Bolivia, Kenya and India. Community groups of poor livestock keepers were formed in the four slum areas of Nairobi to empower individual livestock owners for collective action. More than 1,000 farmers are currently involved in the project and represent the direct beneficiaries.

The Ugandan project has effectively collaborated with the CGIAR Urban Harvest Programme in Kampala, bringing together representatives of urban farmers, policy makers at city and national levels, civil society groups, researchers and donors. This process has facilitated change in city bylaws giving rights to city farmers.

The study ZC0256 carried out in Ethiopia, Kenya and Uganda showed the potential for Livestock Parliamentary Groups (i.e. groups of Members of Parliament with constituencies in pastoral areas or concerned with pastoral development) to influence policy for pastoral areas. The study suggested that well targeted LPP support to Livestock Parliamentary Groups in promoting policy development for pastoral areas

could have a significant impact on pastoral livelihoods. In general, despite the increasing democratisation in Africa, the importance of MPs in the development of natural resource management has not been sufficiently addressed. This is particularly important in light of the fact there is an increasing acceptance that the major issues in pastoral development are related to policy and governance, issues such as conflicts and insecurity, livestock marketing, land rights, inadequate provision of services and infrastructure, drought and dependence on food aid. These issues are not issues of policy alone but also of its implementation. Parliamentarians, who have roles in both policy-making and oversight, are well placed to contribute.

The LPP work with parliamentary groups has highlighted some of the important issues to consider for the success of policy advocacy including:

- The complex political circumstances of each individual country
- Parliamentary procedures and the parliamentarians ability to use them
- The role of individuals, particularly 'policy entrepreneurs' able to network across different parties, NGOs and academia
- The limitation of individual MPs, in terms of motivation and capabilities
- The unmet need for continuity and institutional memory, and the patchy nature of MPs' linkages to civil society organisations.
- The acute need for information on a variety of topics, including technical and policy options in the drylands, and actual conditions in far-flung rural constituencies.

One of the difficulties for Indian pastoralists was that the Ministry of Environment and Forest is openly against pastoralists, attempting to exclude them from their traditional grazing areas. The Ministry's livestock policies have focused on cross-breeding of indigenous breeds with exotic ones while ignoring conservation and development of the much better adapted and often productive indigenous breeds kept by pastoralists. Furthermore, the Animal Health provision services are geared towards the needs of affluent landed livestock owners. Another difficulty is that the small numbers of NGOs and pastoral organisations have not yet been able to combine their voices and raise the subject of Pastoralism at a national level. Project ZC0181 management felt that the future of pastoralism in India will depend heavily on political decisions made by the State and Central Government.

Policy Communication

Assessments to-date indicate that two research projects (R8109 and R8110) and an urban livestock development scoping study (ZC0201) are making a considerable contribution to science knowledge on the landless. The projects have initiated stakeholder consultation groups at national and state levels in both Pondicherry and Tamil Nadu (India) and in four slums in Nairobi (Kenya). The projects have developed interactive learning aids and videos (called 'Livestock Guru' in India, 'Daktari' in Kenya

The materials used to communicate policy are also relevant to policy advocacy. To address the knowledge gap between northern and southern countries, one project developed traditional and ICT-based interactive learning aids and videos on appropriate animal health and husbandry issues for local community and NGO groups

and 'El Promoter' in Bolivia) in local languages on appropriate animal health and husbandry issues for use by local communities and NGOs.

Culture and Policy

LPP has used the same approach of using focus groups to resolve conflicts and so lead to policy change with livestock keepers in two very different contexts. The technique worked well in urban Uganda, but fared poorly with the pastoralists in India. These two projects show that simple engagement of a range of stakeholders and policy makers can be insufficient on its own, since the same technique of using focus groups brought substantial benefits in Uganda but only failure in India. The ZC0181 project intended ultimate beneficiaries were the pastoralists, nomads and transhumant groups in the arid and semi-arid areas of Himalayan India. The project failure was largely due to cultural influences and past experience. Pastoralism was primarily viewed as an obstacle to development and the pastoralists were politically marginalized and increasingly excluded from scarce common property resources. However continuing to work with pastoralists, given their resilient nature, could empower them to maintain their capacity to produce food on marginal lands.

Long-term nature of Policy Shaping

Although there is evidence that further interventions-related research to deal with problems experienced by pastoral and transhumant communities would be worthwhile, there is not currently any work underway. This runs the risk of leaving important knowledge gaps.

CPHP: STREET FOOD AND INFORMALLY VENDED FOODS (FOOD SAFETY)

<http://www.cphp.uk.com/>

One feature of rapid urbanisation in developing countries has been the development of informal food supply systems. Resource-poor groups have developed livelihood strategies with limited capital assets to meet opportunities in urban areas. This is typified by the increase in ready-to-eat food prepared and sold by street food vendors. However, while street food vending can be an effective way of providing low cost nutrition to urban populations, it can also pose risks to health, in particular for the young, the elderly and those with HIV/AIDS.

Countries included in this cluster of research projects include Ghana, Zambia and Zimbabwe and India. The projects are:

- R8433 - Maximising Impact of Food Safety Knowledge of street vended and informally vended foods operated by CPHP projects in West and Southern Africa using the coalition approach and extending the approach to India. (2005)
- R8272 - Improving Food safety of informally vended foods in Southern Africa (2003 - 2004)
- R8270 - Developing food safety strategies and procedures through reduction of food hazards in street-vended foods to improve food security for consumers, street food vendors and input suppliers (Ghana) (2003 - 2004)
- R7493 - Enhancing the food security of the peri-urban and urban poor through improvements to the quality, safety and economics of street-vended foods in Ghana (1999-2000)

There have been four projects on street food and informally-vended foods that have been funded by the DFID Crop Post Harvest Programme. All projects sought to explore the wider framework of the policies, institutional linkages and food laws under which the street food vending businesses are carried out. Food safety baseline studies on the pre-requisites programmes of vendors in Ghana, Lusaka and Harare indicated that most operate under limited conditions with respect to food hygiene, location of the business, sanitation, food storage and preparation, and had received minimal training.

BARRIERS TO POLICY UPTAKE

Policy Engagement

In Ghana, nearly 300 vendors were trained but this falls substantially short of the estimated 60,000 vendors in Accra. A survey of 265 street food vendors highlighted that many had limited understanding of their business finances hindering the benefits of training. A survey of 530 consumers indicated that most consumers did not associate unsafe food with food borne illnesses.

vendors, economic decline, rapid urbanisation, high unemployment and the impact of

These street food projects have been either managed or jointly managed by NR International in collaboration with over 22 partner organisations in Africa (Ghana, Zambia and Zimbabwe) and South Asia (India). The coalition partnership approach included street vendor NGOs, local authorities, food standards authorities, research institutions, and food laboratories. Coalition partnerships in Harare and Lusaka sought to carry out action research to explore the issues of government support for unlicensed

the HIV/AIDS pandemic. The knowledge management approach was used to explore ways that institutions and organisations manage and share knowledge.

Policy Communication

A food safety baseline study indicated variations between markets and vendors selling different food types. The microbiological studies indicated that *fufu* (pounded cassava) was more at risk than other foods and it was important to be able to communicate this information to stakeholders and policy makers. Analysis of heavy metal residues indicated that concentrations of the heavy metal lead in street foods were generally low but there may be issues concerning the methodology used to manufacture traditional cooking pots by informal foundries. Promotion materials on food safety to educate both consumers and vendors were developed. These included four TV documentaries and billboards by the Food and Drugs Board of Ghana (with UNIDO funding), and four posters and training manuals for Environmental Health Officers and street vendor NGOs.

Monitoring of microbiological parameters from vending sites over an 18-month period revealed that high rainfall in summer increases the risk of transmission of disease through contaminated water and generally poor sanitation. A training package for environmental health officers dealing with positive approaches to ensuring the safety of informally vended food was developed jointly in Zimbabwe and Zambia and used to train a total of 20 environmental health officers. The course placed heavy emphasis on getting health officials to move towards the identification of problems and solutions at vending sites, and positive approaches to working with vendors.

Culture and Policy

Informal food vending is illegal in Zambia and Zimbabwe. Unlicensed vendors are therefore excluded from government support, and chased away from vending sites. However, economic decline, rapid urbanization, high unemployment and the impact of the HIV/AIDS pandemic have resulted in a dramatic increase in illegal food sellers. Governments of both countries now recognise the need for different approaches to the issue of food sold on the streets. Prior to the project little was known about the status of the informal food vending sector in Lusaka or Harare making it difficult to convince policy makers and implementing agencies of the importance of the sector either in terms of public health issues or contribution to livelihoods.

Long-term nature of policy shaping

In Zambia, new partnerships were developed between those involved in vending and the supporting institutions. In Lusaka and Harare a total of 102 informal food vendors received training on food safety. Vendors became highly motivated and have taken steps not only to improve their own operations but also to pass on information to other vendors. In South Africa, shortly after the Minister of Local Government and Housing took the decision to temporarily close the cooked food section of Soweto market early in the wet season of 2004, the project conducted a training workshop for the Environmental Health Officer (EHO's) and in the speech it was mentioned that she was happy that such an initiative was taking place and hoped that the project output would help her in her work.

Street Vended Food is occurring in a dynamic environment so it is important to understand the research and policy requirements in this context. For example in Ghana

there has been a proliferation of male street food vending businesses, known as 'check-check food vendors' in the last two years. They prepare and sell fast food, very much akin to the Chinese fast foods, which is different to the traditional types sold by women. Informal surveys have revealed that most have limited catering experience and knowledge of food hygiene. Little is known about their livelihood opportunities and/or the potential risks to consumers' health. Given the rate at which they are developing, there is an urgent need to mainstream their training activities in ways that would be beneficial not only for their livelihoods, but also to the health of consumers who patronize their foods.