

## Node: Suite Summary<sup>1,2</sup>

### India: Improving NRM strategies and access to CPRs

#### Context

Most poor people in India are landless and hence do not possess exclusive rights of access to, or use of, any natural resources (NR). However, the poor are able to access common pool resources (CPRs).

In India, the poor and disadvantaged have traditionally relied upon CPRs such as forests, pastures and water bodies as sources of income and livelihood. CPRs are also important for risk sharing and coping with seasonal crises or shocks such as sickness or drought. However, demographic, socio-economic and other pressures are undermining the extent and quality of CPRs.

At a macro-level, agricultural growth is still seen as the key to poverty alleviation in India. Mechanisms, institutions and services for improving NR management, which are accessible by and relevant to the poor, are integral to linking increased agricultural productivity with improvements to livelihoods. Semi-arid production systems characteristically occur where agricultural activities and livelihood strategies are constrained by low and erratic rainfall and infertile, poorly structured soils. In India, the total semi-arid land area is estimated to be 1.6 million km<sup>2</sup>, more than half the total national land area.

Research in this Node: Suite centred on semi-arid areas and began in 2000/2001. It focused on enhancing the understanding of the livelihood strategies of the rural poor (especially landless, marginal and small-scale farmers and herders, including women); the contribution made by CPRs to these livelihoods; the policy environment in which CPRs function; and how to facilitate dialogue to resolve CPR conflict situations. The Suite also reviewed the role of soil fertility management in crop productivity and livelihood enhancement, and evaluated how best to identify, communicate and promote improved NR management strategies for the benefit of the poor.

#### Research Topics

- What are the livelihood strategies of poor rural households?
- How do CPRs contribute to rural livelihoods?
- What is the national policy for managing CPRs?
- How can dialogue to resolve CPR conflict situations be facilitated?
- What is the role of soil fertility management in livelihood strategies?
- How are sustainable NR management strategies best identified, communicated and promoted?

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<sup>1</sup> This document summarises NRSP's work in one of its Uptake Promotion Node: suites. For further details and links to project and project documents see <http://www.nrsp.org.uk/6.aspx>

<sup>2</sup> This document presents research funded by the UK Department for International Development (DFID) for the benefit of developing countries. The views expressed are not necessarily those of DFID.

## Projects

One of the key activities of NRSP from 1999 onwards was to seek an improved understanding of the livelihood strategies and NR assets of the rural poor living in semi-arid areas, and of the range of structures and processes that influence these strategies. This was largely the purpose of two short-term projects, R7558 and R7887, which were expected to provide a foundation for subsequent projects in semi-arid India (see below for project links).

Project R7558 (Understanding household coping strategies in semi-arid India) investigated the nature of poverty for the poor, small and marginal farmers and landless labourers in the districts of Anantapur in Andhra Pradesh and Udaipur in Rajasthan. It sought to provide a sound understanding of current livelihood and coping strategies of poor rural households and of the macro-level forces shaping them. R7877 (Common pool resources in semi-arid India – dynamics, management and livelihood contributions) was targeted more narrowly; it aimed to assemble knowledge on the role of CPRs (and CPR management systems) in the livelihoods of the rural poor, and to generate awareness of this knowledge amongst research and development agencies in India. Its research was undertaken in two states, Andhra Pradesh and Gujarat, where policies have encouraged privatisation of land-based CPRs.

Another short-term project (R7973, Policy implications of CPR knowledge in India, Zimbabwe and Tanzania) also sought to improve knowledge of the contribution that CPRs could make to rural livelihoods in semi-arid regions, see Eastern Africa Suite 3: Drylands livelihoods and CPRs) through a systematic analysis of policy processes, policy options and legislation in each country. The challenge was to define resource management regimes that could secure the claims of the poorest over the flows of benefits that emerge from CPRs, in the face of competitive pressures from other users.

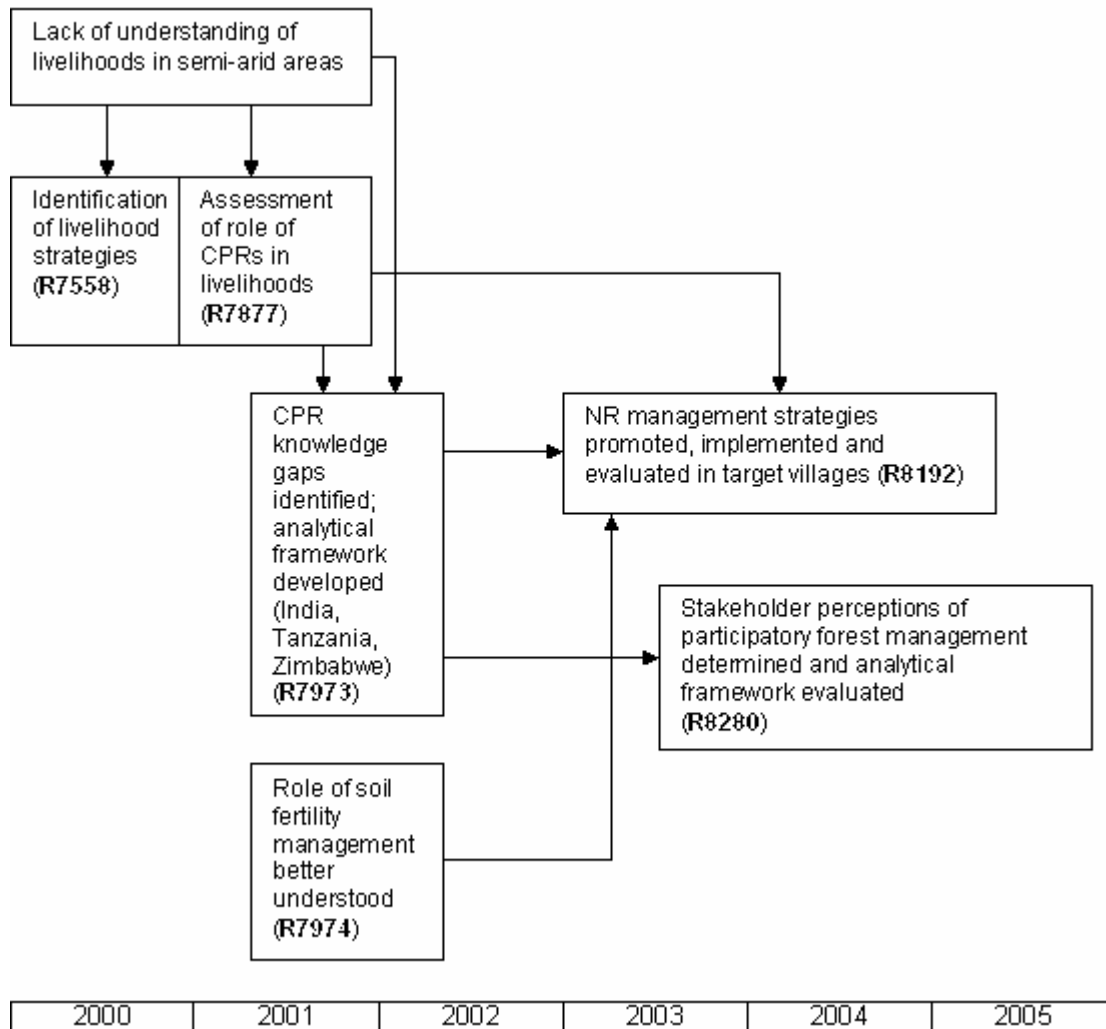
Project R8280 (Incorporating stakeholder perceptions in forest management in India) adopted the analytical framework used in R7973. It involved systematic investigation and documentation of the perspectives and perceptions of key stakeholders (including the poor) in the case study district, Harda, Madhya Pradesh. The research sought to enable the promotion of more inclusive dialogue and policy processes for the management of common property forest resources.

An NRSP-sponsored workshop in eastern India, in 1999, recognised that any improvements in rural livelihoods in semi-arid areas would require further intensification of rain-fed farming systems. Gaps were identified in the understanding of local soil fertility management practices and this led to another short-term project (R7974, Human and social capital aspects of soil fertility management in semi-arid India) whose purpose was to explore the social, economic, technical, institutional and policy factors influencing the soil management strategies of the rural poor. This study combined reviews and fieldwork in selected areas of Andhra Pradesh and Karnataka. Villages with active NGO-implemented NRM projects were compared to those without.

Project R8192 (Enabling rural poor for better livelihoods through improved NR management in SAT India) followed, building on the outputs from R7974, R7973 and R7877. This project sought to identify, evaluate and promote ways in which the livelihoods of the poor could be improved through: application of research knowledge; creation of supportive institutions; and identification of opportunities for pro-poor policy changes. A broad portfolio of action research activities was tested (e.g. establishing village advisory committees, water harvesting

structures and animal health campaigns) in two semi-arid village clusters in Andhra Pradesh and one cluster in Karnataka.

### Project links within India Suite 3: 2000 - 2005



### Outputs

#### Findings

The livelihood study (R7558) found that small farmer and landless labourer households in the target districts had responded to long-term pressures on their livelihood strategies (e.g. economic and environmental changes) through adaptation, livelihood diversification, and migration (rural-rural and rural-urban). There were however an extremely limited number of livelihood opportunities for these groups of the poor to exploit. Animal husbandry and the increased use of CPRs offered possibilities. R7877 identified examples of effective CPR management regimes in the two target states, contradicting the commonly held perception of declines in the capacity to manage CPRs for the common good. This knowledge was used to generate greater awareness amongst policy makers and other stakeholders of the role of CPR management within the livelihood systems of poor people

At a national level, R7973 established that, in India, villagers have extensive legal rights of access only on some specific categories of land (e.g. pasture for grazing, and village forests for fuelwood), which are under the jurisdiction of the village. All other land that is not under private ownership belongs to the state revenue, or state forest, departments. Nonetheless, in practice the rural population, especially the poor, depend on access to such land for their livelihoods.

Opportunities were identified for developing CPR management strategies to benefit the poor through research and policy level dialogue. A framework for facilitating this dialogue was developed. This framework was subsequently used and, in part, validated in the follow-on project (R8280).

R8280 demonstrated that systematically documenting stakeholder perspectives, especially those of the poor, can help to ensure that policy processes do not exclude the poorest and most marginalized communities. Many of these individuals are often neglected because their perceptions are not understood or not taken seriously by decision makers.

One key finding from the communication and uptake phase of this project was that research projects can often make no more than a limited contribution to on-going policy dialogue. The atmosphere for dialogue between policy actors reflects their longer-term interaction and the project was not in a position to change these relationships during its lifetime.

A significant finding from R7974 was the important role that organic residues (as soil amendments, particularly animal manures) played both in crop production and, through trading, in income generation for the poor. There was also limited evidence of an emerging market for vermicompost. In some instances, trading had helped poor people to climb out of poverty, although there were also negative aspects to consider. Little evidence was found of soil fertility decline and farmers felt arable productivity was stable or increasing. Findings also indicated that, despite a general decline in numbers, livestock ownership by the poor was increasing.

In project R8192, the lack of a representative community-based organisation responsible for NR development activities was identified as a constraint to the uptake of improved technologies. By supporting the establishment of such an organisation (the Salaha Samithi (SS)) in each target cluster of villages, the project was able to facilitate the equitable management of project interventions so that access by the poor improved. It also facilitated dialogue between project staff and villagers, enabling villagers, including the poorest members, to identify their key cultivation constraints and prioritise the interventions that could increase labour, land and/or enterprise productivity. The project led to a greater awareness among the communities of the extent of soil and water loss from run off water and of the need for conservation technologies, including productivity enhancing interventions on CPRs. Although a scarcity of CPR land in the pilot districts limited the emphasis of the project on CPR management, R8192 was successful in enhancing the access of the poor to CPR benefits, e.g. by supporting the poor to acquire and manage 2-4 sheep.

At the end of the two-year project, project staff emphasised their appreciation of: the importance of flexible planning and resource allocation for fully participatory projects; the benefits from implementing partnerships (research organisations working with development NGOs); the relevance of a livelihoods rather than a sectoral perspective to development; and the need for projects to be of adequate duration to enable stakeholders to be confident in the

findings. Communication to policy makers at regional levels was achieved throughout the project life through policy briefs, case studies and folders; interactively during annual and topical workshops; and, for partner institutions, during project implementation.

### *Research messages*

- The livelihood strategies of the rural poor are dynamic and diverse, but there are a limited number of options available for the rural poor to improve their livelihoods in semi-arid areas.
- Grazing land and forests are particularly important CPRs for poor people. CPRs, when they are effectively managed, can continue to play an important role in the livelihoods of the rural poor.
- Systematically documenting differences in stakeholder perceptions and sources of conflict can enable a more inclusive policy process.
- Research projects need to understand the wider policy making context and be cautious when predicting their impacts on policy dialogue.
- Expanding trade in organic fertilizers (if there is a high demand for them) can provide important, but usually neglected, income-generating opportunities for the poor, whilst contributing to increased soil fertility.
- Establishment of a representative NR-focused village institution can encourage the identification and uptake of relevant NR management strategies and equity of access of villagers to interventions.
- Flexibility in planning and resource allocation and continued engagement over a sustained period is critical for effective participatory development of NR management strategies.
- When research and development agencies work together to promote new NR technologies, both parties learn from each other's experiences, leading to more appropriate and effective research, and more flexible, transparent and successful development interventions.

### *Key research products*

- Adams, W.M., Brockington, D., Dyson, J. and Vira, B. 2003. Managing tragedies: understanding conflicts over common pool resources. *Science* 302, pp.1915-6.
- Adolph, B. and Satheesh, P. V 2002. Human and social capital in soil fertility management. Video containing two films (60 and 15 min). Natural Resources Institute, University of Greenwich, UK; Deccan Development Society and BAIF Institute for Rural Development (both India).
- Butterworth, J., Adolph, B. and Suresh Reddy, B. 2003. How farmers manage soil fertility. A guide to support innovation and livelihoods. Natural Resources Institute, University of Greenwich, UK, pp.80, plus CD-ROM.
- Conroy, C., Iyengar, S., Lobo, V. and Bhaskara Rao, G. 2001. Household livelihood and coping strategies in semi-arid India: adapting to long-term changes. Society for Promotion of Wastelands Development, New Delhi, India, pp. 88.
- Vira, B. (ed.) 2005. *Conflicting perceptions: forestry and development in central India*. India Research Press, Delhi.

## **Impacts**

- Through mutually supportive working relationships between research organisations and development agencies and between Indian and UK collaborators, the projects in this Node: suite enhanced the research capacity of all the collaborators.
- Partners in project R8280 have been enabled to use project methods and insights to contribute to a more inclusive policy process for CPR management.
- In each target district of project R8192, despite its short duration, some participating rural poor households reported improved livelihood outcomes through combinations of, for example: i) livestock capital and productivity (sheep and cattle); ii) increased land and crop productivity (crop-based interventions, water harvesting, vermi-composting, improved implements); iii) increased access to CPRs (by landless families); iv) increased financial capital (from enterprise income), and v) increased human labour productivity (agricultural implements).
- Project partners in R8192 reported that applying the project findings would increase the relevance and effectiveness of their rural development service work.
- Outputs from R8192 are contributing to policy-level and strategy planning discussions within organisations such as CRIDA (Central Research Institute for Dryland Agriculture, Hyderabad) and ICAR (Indian Council for Agricultural Research).

## **Further work**

Further uptake promotion and dissemination of project outputs (e.g. products based on the method and findings from R8280) to wider audiences is important to ensure that the knowledge and insights generated and methods developed in this Node: suite have maximum practical impact. Follow-up monitoring and evaluation would also be valuable to assess the longer-term impacts of project activities on new policies, initiatives and projects.