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## NATURAL RESOURCE MANAGEMENT (NRM) AND RURAL LIVELIHOOD: SELECT ASSIGNMENTS

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**Sida's Country Strategy for the Water and NRM Sector** identified strategic areas for India-Sweden partnership and provided detailed programme options with a focus on poverty, rural decentralization and livelihoods. It was informed by a national-level situation analysis and interactions with government and Development Partner representatives at various levels, including the States of **Chattisgarh, Madhya Pradesh (MP), Orissa, Rajasthan, Tamil Nadu (TN) and Uttarakhand.**

A three-year study on **Panchayati Raj and NRM** in India was undertaken in partnership with the Overseas Development Institute (ODI), UK and partner organizations (supported by the Ford Foundation) in the States of **Andhra Pradesh (AP), Karnataka and MP.** It explored the evolution of Panchayati Raj Institutions (PRIs), changing resource management strategies and the possible institutional links between the two for equitable, efficient and sustainable decentralized NRM (DNRM) in India. Case studies on similar themes have been undertaken by TARU in **Orissa and Uttar Pradesh (UP).** Another TARU Study on **PRIs in Rajasthan** examined key issues related to the ongoing decentralization process in the State and suggested managerial and institutional arrangements for strengthening the role of PRIs in watershed development and joint forest management in Rajasthan.

TARU's **Situation Analysis of Watershed Development in Himachal Pradesh (HP), MP and Rajasthan** was commissioned by AusAID. This involved analysis of natural resource conditions, their current usage pattern and performance of ongoing and past watershed development in the three States with a view to inform the design of future strategies in these sectors. Programme impacts on poor and women, current performance levels and constraints among various village level groups and training and their capacity building requirements were also examined during the course of the Situation Analysis. This was followed a **Pre-Feasibility Mission for Watershed Development Projects in HP, MP and Rajasthan.** The Mission analyzed the viability of watershed projects in the three States. A critical analysis of natural resource conditions and technical, institutional, social and programme parameters, followed by consultations and negotiations with institutional stakeholders, were key components of the Mission.

Our work for the Society for Promotion of Wasteland Development (SPWD) on **Developing Practicable Scientific Approaches on Water Governance and Livelihoods and Contributing to Policy Dialogue on Basin Issues** has sought to ground practical approaches to deployment of good governance and Integrated Water Resource Management (IWRM) principles in select sub-basins across the country. The lessons learnt from these experiments were fed back into policy dialogue at the national and State-levels.

The study on **Production Options for Nutritional Security in India** for CARE India aimed at identifying key food production interventions to enhance food security and nutritional quality among the poor. A review of Development Partner priorities and their key strategic thrust areas was undertaken and potential institutional mechanisms for achieving these objectives, identified, along with themes for participatory studies to understand local resource situations. An innovative attempt was made to use thematic mapping to highlight the geo-physical and socio-economic conditions across the identified regions.

Our **Impact Assessment of the AP Rural Livelihood Project (APRLP)** drew on the Sustainable Rural Livelihood (SRL) framework and sought to go beyond documenting project performance to investigate underlying factors that had determined performance, draw lessons for the future and analysed the opportunities and constraints to operationalizing various recommendations. It covered 100 watersheds across eight districts with the objective of delineating the impact of the APRLP on the lives and the livelihoods of the rural poor and of the approaches adopted, with a special focus on social, environmental, institutional and economic changes that had occurred through project interventions and their sustainability. In part, the Impact Assessment of the APRLP was informed by our earlier **Rapid Review of the APRLP**. TARU went on to undertake the **End-term Impact Assessment of the APRLP**. Earlier, the **Review of Land Tenure in Rural AP** examined the evolution of revenue laws in the State, assessed the current situation with respect to land ownership, encroachment and land alienation among the poor to identify emergent risks to the APRLP and provided necessary control measures. A similar **Review of Land Tenure in Rural Orissa** informed the design of DFID India's **Western Orissa Rural Livelihoods Project (WORLP)**.

TARU is part of the Coffey-led Consortium for **Technical Cooperation Project Support to the Madhya Pradesh Rural Livelihoods Project (MPRLP; Phase II)**. The Consortium supports the MPRLP's State Project Management Unit (SPMU) in identifying, planning, undertaking and monitoring long and short-term Technical Assistance (TA) Needs and provides implementation and capacity building support to the MPRLP at all levels in the scale-up and roll-out of Phase II. As part of this Consortium, we have recently undertaken a strategic review of the **MP Rural Employment Guarantee Scheme (MPREGS)**.

The **Design, Development and Implementation of a Management Information System (MIS) for the MPRLP** is being undertaken by us. The bilingual MIS is user friendly, secure and robust; recognizes the range of user information requirements and sophistication levels and past hardware and software investment; is equipped with powerful and wide-ranging report generation options and a GIS/ GIS-like interface with drill downs; and, importantly, is being used by about 300 Project Facilitation Teams (PFTs) working around 4,000 villages and with over 600,000 households. Design of appropriate data collection and reporting formats, actual data entry from about 800 villages and 125,000 households, extensive training to all PFTs and district and State-level teams (about 1,000 individuals), development of a bilingual User Manual and provision of Help Desk support, are proposed tasks that have been undertaken.

The **Social Assessment, Stakeholder Analysis and Institutional Design for the Uttar Pradesh (UP) Sodic Land Reclamation Project (UPSRLP; Phase II)** involved identification of key stakeholder groups, an assessment of potential positive and negative impacts of proposed interventions, analysis of social risks and development of appropriate institutional arrangements to inform project design. The project design was finalized on the basis of this. Earlier, our **Evaluation of Beneficiary Participation for the UPSRLP (Pilot**

**Phase)** had involved an evaluation of the village level institutions established under the project including Water User Groups (WUGs) and Women Self-help Groups (WSHG). Interactions with these groups had focused on their operations, management and constraints and led to changes in the operational focus of the project.

Our Situation Analysis of **Extension Services for Rural Poor Women in MP** was to inform AusAID's proposed intervention on this theme in the State. It analyzed the situation of women in India and MP, the relevant development programmes and their effectiveness and, the role of women in agriculture and extension services available to them.

Our **Evaluation of the Women and Tribal Development Programme** of the World Bank-assisted Tripura Rubber Project involved development of indicators for relevance, effectiveness, efficiency, impact, process and sustainability to measure the involvement of women and social development, institutional capacity building and economic impacts on participating families. This challenging assignment was conducted amidst high insurgency in the area and also examined the utility of this programme for reducing poverty-induced unrest.

We undertook the **Performance Rating of Self Help Groups (SHG) and Common Interest Groups (CIGs) for the AP District Poverty Initiative Project (AP-DPIP)**. The objective was to rank the SHGs and CIGs created under the AP-DPIP on basis of their performance in micro-credit mobilisation, savings mobilisation, community investment, income generating activities and their ability to address health, education and social issues. This involved a **Study of the DPIP in MP and Rajasthan** to understand strategic differences in implementation from the AP-DPIP.

TARU, with UNICEF-support, conducted the **Evaluation of the Rajiv Gandhi Watershed Mission (RGWM) Watersheds in MP**. This covered 13 districts in each of the 12 agro-ecological zones of undivided MP. The exercise involved interactions with primary and secondary stakeholders at the district, milli-watershed and village level using both qualitative and quantitative techniques. It included an assessment of the livelihood-related, socio-political and environmental impact of the RGWM interventions, and these were examined with special emphasis on the situation of the poor and women. Issues relating to human resource and finance management, training and capacity building, monitoring, review and feedback mechanisms and village level process were also examined. The latter were examined to assess their implications for equity, transparency and sustainability. An analysis of the livelihood situation of the poor, situation of Womens' Thrift and Credit Groups (WTCGs) and factors contributing to their performance and current training and capacity building and institutional development efforts and improvements required therein, were critical components of the evaluation exercise.

TARU carried out the **Environmental Assessment of Western India Rainfed Farming Project (WIRFP)**. This was to assist the DFID India Mid-term Evaluation and WIRFP partners in reviewing the environmental impacts the project, including the impacts of changing access/ quality of natural capital on the livelihoods of the poor. It identified key environmental issues, developed a simple village-based environmental monitoring framework and identified opportunities and mechanisms for collaborative working between various project partners.

The **Study on Water Resources, Water Resource Management Interventions and Participatory Village Water Resource Planning** in Palamau district of Bihar (now **Jharkhand**) formed part of the Palamau Drought Proofing Action Plan. It assessed the status and examined parameters of food security, water and forestry resources in normal and drought periods in Palamu. This assessment was then cross-linked to the socio-economic situation of households and communities, development institutions and the structure of economic organization in the district to prepare detailed village level mitigation plans for 50 villages in the district, and recommendation sets for other villages. A range of qualitative and quantitative tools was used for data collection. Analysis was further informed by remote sensing inputs.

**Mapping and Appraisal of Land and Water Management** across watersheds in Almora (**Uttarakhand**), Kutch (**Gujarat**), Koraput (**Orissa**) and Visakhapatnam (**AP**) was conducted to examine local land and water use patterns. These studies produced options and strategies for intervention in land and water management. The Water-Energy-Biomass Systems (WEBS) modelling method was developed for use in watershed management programmes based on this exercise.

A **Participatory Assessment of Natural Resources and their Usage Patterns** in parts of Kunigal, Tumkur, **Karnataka** was undertaken to develop sustainable water, energy and biomass systems. Undertaken for the Indian Institute of Science, Bangalore, this was a multi-disciplinary study of land and water resources, land ownership patterns, caste composition and political economy at the village level. Participatory methods were used for collection of data and development of natural resource management options.

The **Participatory Natural Resource Assessment and Vegetation-change Mapping** in two tribal areas of East Godavari, **AP** studied five predominantly tribal Panchayats in the district to assess the land, water and biomass resources, their present usage pattern and strategies for natural resource development at village level. Simple and locally appropriate technical options for land and water resource management were provided.

The **Study of Procurement and Marketing of Non-Timber Forest Produce (NTFP)** trade in Koraput and Kalahandi, Orissa involved assessment of production and collection volumes and trade practices for the various NTFPs found in the area. Further, the legal environment, mechanism of trade, key players and distribution channels for NTFP were examined in detail and recommendations were made for the strengthening of women's NTFP collectors' groups through legal changes and institutional support.

An **Appraisal of the 5% Jaldhar Model** for farm level moisture conservation was undertaken in Purulia, **West Bengal**. With certain modifications, this system was introduced in the hilly tribal dominated areas of East Godavari, AP and local youth were trained in the activity. Inclusion of the activity in the ITDA's portfolio of projects enabled its wider adoption in the region.

A research project undertaken for the Department of Science and Technology, Government of India in Tehri Garhwal, **Uttarakhand** examined and established state-of-art methods to **Delineate Hill Aquifers and Design Sustainable Groundwater Use Strategies**.