

# Consortium on Capacity Building for Watershed Management in India



**International Crops Research Institute for the Semi-Arid Tropics**

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### *Abstract*

Watershed approach has been recognized as a growth engine for sustainable development of rain-fed areas in India with the aim to improve the capacities and networking of public institutions involved.

Watershed development programs in India are silently revolutionizing dryland areas. Number of impact assessment studies of watershed projects in India showed that the accrued benefits of watershed projects are not at the desired level and concurrent with the investments. Meta-analysis of 311 case studies and the recent comprehensive assessment of watershed programs showed that 68 per cent of watershed projects performed below average for the economic, efficiency and sustainability parameters. The assessment also identified the capacity building as the weakest link for scaling-up the benefits of watershed programs.

The Ministry of Agriculture, Government of India and the GTZ have sponsored a project on capacity building for decentralized watershed management in India. The national consortium-led by ICRISAT conducted a project launching workshop to initiate the process of capacity building consortium formation in three pilot states of Karnataka, Rajasthan and Uttarakhand in India.

The participants discussed consortium modalities in pilot states - Karnataka, Rajasthan and Uttarakhand - and criteria and challenges for selecting nodal agency for the state consortium. The workshop identified support services that would be rendered by state consortium that includes needs assessment, identifying resource persons, demonstrations, networking, and platform for knowledge management. ICRISAT's consortium approach for technical backstopping and the APRLP's experience in the area of decentralized capacity building were discussed.

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# MoA-GTZ-ICRISAT-MANAGE Project

## Consortium on Capacity Building for Watershed Management in India

### Proceedings on Project Launching Workshop

*29-30 April 2008*  
*ICRISAT-Patancheru*

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# Proceedings on Project Launching Workshop for Consortium on Capacity Building for Watershed Management in India

## Background

Watershed approach has been recognized as a growth engine for equitable and inclusive development of rain-fed areas in India. Government of India (GoI) invested over Rs. 88 billion in watershed management for treating 22 million ha during the 10<sup>th</sup> Five Year Plan (2002-07). National Development Council and 11<sup>th</sup> Plan Working Groups have recommended an investment of approximately Rs. 360 billion to cover about 38 million ha through watershed management for the 11<sup>th</sup> Five Year Plan (2007-12). However, the huge public investments in watershed management in past 20 years have not optimized desired benefits. Various independent evaluation studies have indicated that watershed programs have the potential of becoming growth engines for rain-fed agriculture with BC ratio of 2.0 and IRR of 24.7. However, it has been revealed that capacity building is one of the weakest links in the public watershed management programs, holding back the sustainable potential development of dryland areas.

The Ministry of Agriculture (MoA), GoI, in partnership with the German Technical Cooperation (GTZ) is implementing a project, “Strengthening capacity building for decentralized watershed management” (CBWM project). The objective of the project is to improve the capacities and networking of central and state organizations to implement large public investment programs for decentralized watershed management. Capacity building is defined as “a process to strengthen the abilities of people, organizations and systems to make effective and efficient use of resources in order to achieve their own goals on a sustainable basis”.

In order to understand the capacity building challenges faced by the watershed management programs in the country, the MoA and GTZ jointly organized a brainstorming workshop of experts in May 2007 and prioritized issues related to capacity building while implementing watershed programs at national, state and district levels. The key issues identified were lack of strategy or guidelines for capacity building; insufficient resource allocation and inadequate human

resource; low emphasis for capacity building; absence of mechanism for identifying needs for capacity building and dedicated quality service providers, low scope for promoting public-private partnership in capacity building, and lack of departmental institutional coordination. The challenges identified during workshop were further triangulated with a few state departments through project-scoping exercise. Hence, the project was proposed to develop mechanisms and strengthen the capacity-building and service delivery system in watershed management programs. A national consortium comprising of the Ministry of Agriculture-GoI, GTZ, International Crop Research Institute for Semi Arid Tropics (ICRISAT) and National Institute for Agricultural Extension Management (MANAGE) has been formed for implementation of the project. Three pilot states, Karnataka, Rajasthan and Uttarakhand have been selected for the implementation of the first phase of the project.

One of the components of the CBWM project is to establish and strengthen state level consortium of capacity building service providers for the watershed management programs. The envisaged benefit of state level consortium of service providers with diverse competencies are as follows:

- effective and efficient implementation of watershed programs requires multidisciplinary skills and competencies. It is not always possible to get all the required skill sets in one organisation. In a consortium, organizations and individuals with different competencies and resources can work together in a decentralized manner for achieving common objectives;
- the consortium becomes a vehicle for transporting innovations and good practices to the public programs and facilitates easier technology transfer to target groups through the Project Implementing Agency (PIA) that has access to knowledge pool of the consortium.

The launching workshop on consortium approach for capacity building was conducted in ICRISAT 29-30 April 2008 to internalize the concept of capacity building consortium for watershed management amongst the pilot stakeholders; to share the experiences of watershed consortium approach in Andhra Pradesh and to finalize the modalities for forming capacity-building consortium in three pilot states viz., Karnataka, Rajasthan and Uttarakhand.



# Inaugural Session

*Chair: Michael Glueck*

TK Sreedevi welcomed the participants of the workshop on behalf of project team and ICRISAT. She detailed expected outputs from the workshop and elaborated the objectives:

- to internalize consortium approach for capacity building in watershed programs for the participants from three pilot states (Karnataka, Rajasthan and Uttarakhand);
- to prepare draft modalities for consortium formation, criteria for consortium membership and operational guidelines for capacity building measures;
- identify nodal contact person in selected states for establishment of consortium.

Ravindra Singh, GTZ India, spoke about strengthening capacity building for decentralized watershed management while defining that capacity building is more than training, which further expanded that capacity building is defined as a “process to strengthen the abilities of people, organizations and systems to make effective and efficient use of resources in order to achieve their own goals on a sustained basis”. He also briefed about the components in the project as follows:

- strengthening state level institutions and organisations for capacity building service delivery to watershed programs;
- development of capacity building system for National Watershed Development Program for Rain-fed Areas (NWDPRAs), including public private partnership approaches;
- development of a monitoring, evaluation and learning system for NWDPRAs;
- knowledge sharing and dissemination of learning with service providers, policy makers, implementers and other agencies involved in watershed management.

The presentation also detailed the scope for project interventions considering the limited project resources and time period, where the project would focus on bringing out promising approaches and developing instruments for capacity building at the state level; development of tools and instruments for capacity building in selected states; piloting the implementation of such instruments within the watershed programs with state resources and hence resource commitment from the states were mentioned as crucial for implementation of the project at the state level. Need for such resource commitment could

be made out of the allocation for capacity building at the state and district headquarters. Mr Singh presented the structure of the project implementation team consisting of RFS division (Ministry of Agriculture), GTZ-NRM program, ICRISAT and MANAGE.

The presentation highlighted the need for establishing state level consortium of service providers under public watershed programs in Karnataka, Rajasthan and Uttarakhand, with learning and experience from watershed program in Andhra Pradesh and ICRISAT. The presentation also brought out the perceived benefits of consortium of service providers like availability of multidisciplinary skills and competencies in one organisation; availability of need-based and decentralized services in watershed management program through wide spread pool of resource persons in consortium; easier access of project implementing agency to the consortium's knowledge pool and the consortium as platform for transferring innovations and good practices to the public programs.

CLL Gowda, OIC, Director General of ICRISAT delivered inaugural address and welcomed the participants for the workshop. In his inaugural address, he highlighted that water is becoming the focal point of discussion and action at global level as looming water scarcity is threatening food security and other livelihoods options. He also mentioned about the Comprehensive Assessment of Watershed Programs in India that recognized watersheds as growth engines in dryland areas and the Global Comprehensive Assessment – Water for Food and Water for Life that identified watershed approach for upgrading rain-fed areas. He also added the work by ICRISAT on meta analysis of watershed programs in India, emphasized on the scope for enhancing the impact of watershed program in the country. He reminded that two thirds of the watershed programs in the country are performing below average due to lack of technical support, improper institutional mechanisms and lack of new knowledge for the stakeholders. He appreciated the novel initiative taken up by the Ministry of Agriculture, Government of India, and GTZ, which is implemented in partnership with ICRISAT and MANAGE for establishing the national consortium as well as state level consortia in three pilot states of Karnataka, Rajasthan and Uttarakhand. He felt that the learnings available with ICRISAT team from the consortium approach in Andhra Pradesh will help in building the consortium for capacity building for decentralized watershed management. S Marimuthu proposed vote of thanks on behalf of organizing committee for the support from ICRISAT team and the participants from various partner institutes

# Technical Session I

*Chair : K Thirupathaiah*

*Rapporteur: Piara Singh*

Debashish Sen, People's Science Institute (PSI), presented PSI's experience on capacity building in participatory watershed development. He showed that PSI had established Centre for Participatory Watershed Development (CPWD) during October 1996 to extend training and development support for participatory watershed development work. He highlighted that CPWD has four operational units:

1. training unit that provides foundation and short special courses on participatory watershed development;
2. development support unit that provides technical and managerial assistance in the field level to selected project implementing agencies;
3. communications unit to prepare training and communication materials and impart training in folk communication media; and
4. research unit to enhance knowledge to improve the effectiveness of watershed development.

He brought up the training courses offered by CPWD for various target groups like foundation course for field level workers and watershed development team members, short duration training for field level workers and watershed development team members, orientation course for members of *Panchayat Raj* institutions and watershed secretaries, orientation courses for project officers, block development officers, and departmental officials, orientation camps for self help groups (SHGs) and user groups (UGs) and orientation camps for *Mahila Mangal Dals*. His presentation also highlighted the approaches followed for training comprising of training needs assessment, curriculum designing, program schedule for structuring of sessions, identification of resource persons (in-house and external), preparation of training materials (lecture notes, manuals, films), logistical arrangements, review exercises (daily and overall) and feedback and internal evaluation including effectiveness and future needs.

Debashish Sen described training design for various target groups, course content in various training modules and training materials published by the institute. He also highlighted the services provided by development support unit of the centre, which provides field support to project implementing agencies for undertaking watershed development program in Chattisgarh, Himachal Pradesh, Uttarakhand and Uttar Pradesh; and development support for community mobilization, formation of village level institutions and capacity building, undertaking one field visit in alternate month to the selected watershed of the project implementing agency.

He mentioned the list of intuitions availing capacity building services from CPWD and other institutions in Uttarakhand that provide capacity building in watershed management. He highlighted the key issues for capacity building in Uttarakhand as conservation of water resources, fodder and horticulture development, organic farming (including system of rice intensification), soil and water conservation, women's mobilization, micro-enterprise development and financial linkages.

Mechanisms for sharing materials to the end users and impact assessment of capacity building issues were discussed. It was indicated that the capacity building programs of CPWD are restricted to the programs of the non governmental organizations (NGOs) and not extended to state departments. The qualitative characters like development of leadership or proactiveness, women members coming out of the houses and responding to the programs are the parameters for measuring attitudinal changes in the communities. It was indicated that operational guidelines for implementation are necessary when answering to the prerequisite for testing capacity building delivery system in the state. He also opined that identification of resource person is important for capacity building rather than designating institute per se.

Sandeep Dave, Commissioner (Sujala Watershed Project), Government of Karnataka, presented capacity building initiatives in Sujala project. He started his presentation by defining capacity building as the process of strengthening procedural, organizational and institutional capabilities of individuals, groups, institutions and organizations involved in the project. He listed out key points like dissemination of information and objectives; implanting new concepts in the minds of stakeholders; developing knowledge and enhancing awareness; equipping the stakeholders with necessary skills; building a shared vision among stakeholders at various levels; developing self-confidence and self esteem; enabling the attitudinal change process and empowering people to enable participation and realizing ownership while narrating the importance of capacity building. He also explained the components in the training cycle and stressed on the importance of accounting project requirements at every stage of the training cycle.

Sandeep Dave elaborated the objectives of capacity building in Sujala project, which are:

- to ensure ownership through participation;
- to ensure trust and transparency and
- to ensure equity and social inclusiveness among the communities.

He mentioned the framework of training program in Sujala project, the composition of training advisory group at apex level for managing the training program with the help of expertise from University of Agricultural Sciences (UAS), partner NGOs, ICRISAT, ANSSIRD (Abdul Nazeer Sab State Institute of Rural Development) and KERS (Karnataka Engineering Research Station) and the role of support agencies that are engaged for capacity building at watershed level. He also detailed the capacity building initiatives for different stakeholders in Sujala program besides existing training modules and materials in the program. He presented uniqueness of Sujala program in achieving more transparency and accountability through open house monthly meeting, wall paintings, beneficiary passbook, evidence from satellite images, book keeping and auditing participatory implementation and audio / teleconferencing. He also narrated wall painting of soil nutrient mapping and meteorological information with onset of monsoon and length of growing period, farmers field school and demonstrations as initiatives as part of capacity building in productivity enhancement. He has also shown the impacts of capacity building initiatives in Sujala program and spillover effect of initiatives recognized through National Productivity Award 2005-06; National Water Award 2006-07 and Earth Care Award 2008.

Sandeep Dave answered core competency as the criteria considered while forming consortium for capacity building in Sujala program. He also mentioned that community participation as one of the training modules in the program, bringing sustainability to the program while ensuring participation. He replied that capacity building needs to be listed by individual NGOs. While reacting to a question for value addition to capacity building in Sujala program, he said that learnings itself were an added value.

RK Pal, Senior Engineer, Rajasthan Agricultural University, presented status of capacity building measures for watershed management programs in Rajasthan. He highlighted current scenario of rain-fed agriculture in the light of watershed management, showing the trend in delaying onset of monsoon as well as the decline in number of rainy days. He showed the basic agricultural statistics, land use pattern and agricultural institutions in the state and also highlighted major crops grown in the state. He mentioned major on-going programs like Desert Development Program (DDP), Drought Prone Area Program (DPAP), Integrated Wasteland Development Program (IWDP) and National Watershed Development Program for Rain-fed Area (NWDPA) in the State and finally addressed key areas in watershed programs in Rajasthan like livestock improvement and health care (goat, cattle and buffaloes), sylvi-pastoral system, and agro-horticulture system.

K Thirupathaiah concluded the session by emphasizing that the approach in capacity building need not be uniform though it is important to work together. He also appreciated the GTZ initiative in capacity building in watershed management and remarked that this initiative will influence other donors to come forward in supporting capacity building in watershed management.

## Technical Session II

Chair : Sandeep Dave

Rapporteur : Ch Srinivasa Rao

SP Wani presented watershed consortium approach: reflections, learnings and policy guidelines. He shared the learnings from ICRISAT's work on watershed and highlighted major issues like equity in distribution of benefits to small holders and landless communities, good community participation, strong and concurrent participatory monitoring and evaluation mechanisms, holistic approach and technical backstopping for the successful implementation of watershed programs. He mentioned that ICRISAT is the leader to adopt farming system research, which gradually brought technology packages to integrated watershed management in recent years and has been the engine of agricultural growth and development in rain-fed areas as well as entry point for increasing productivity; improving livelihoods; protecting environment; empowerment of poor and social capital development.

For scaling up watershed programs in India, SP Wani emphasized convergence, collective action, capacity building, PPP-business model to promote high value crops and technical backstopping. He mentioned that ICRISAT has tested many initiatives to address missing links in watershed programs, and explained that *knowledge-based entry point activity* (EPA) is more effective for better and sustainable community participation than the regular cash-based EPA currently adopted normally in watershed programs; *capacity building is the weakest link* for scaling-up meaningful watershed programs; *empowerment of vulnerable groups* is important for bringing equity in the program. He described *Adarsha Watershed: Bright spot in watershed program* where ICRISAT has implemented watershed concept through consortium approach and further elaborated time line for bringing consortium approach in to reality in watershed program. He discussed in detail about the enabling factors for the success of consortium approach in watershed program. He concluded the presentation, quoting the following policy guidelines emerged from the work done by ICRISAT-led consortium.

- Holistic approach for improving livelihoods.
- Technical backstopping through consortium of research institutions.
- Urgent need for policies to regulate groundwater exploitation in rain-fed areas – suitable water and energy policies.
- Cultivation of high water requiring crops such as paddy and sugarcane in watershed areas to be regulated.

- Price and market support along with suitable incentives for low-water requiring crops are needed.
- More investments through public and private partnerships in rain-fed areas to be promoted.
- Budgetary allocations needed for productivity enhancement, micro-enterprises and capacity building.
- Knowledge sharing and empowerment of all stakeholders through water literacy initiative is needed.
- Mainstreaming of women in watershed development is must.

Kota Thirupathaiah, Special Commissioner (Rural Development), Government of Andhra Pradesh, presented Consortium Approach to Capacity Building: Andhra Pradesh Experience. He revealed that consortium in Andhra Pradesh initiated with five resource organizations where technical institutions aimed to provide handholding support and NGOs for implementing innovations. He mentioned that the consortium was made into network of 27 resource organizations by 2004 to provide intensive capacity building inputs to both primary and secondary stakeholders in watershed program. He remarked that evolution of consortium for capacity building was part of up-scaling of APRLP approaches.

Thirupathaiah listed out the following support services from consortium in the development programs. He also mentioned that expansion of support services to other rural development programs including National Rural Employment Guarantee Scheme (NREGS), Centre for Education and Communication (CEC), etc., and non-pesticide management (NPM) through Society for Elimination of Rural Poverty (SERP). He concluded that the initiative has brought NGOs' role in new watershed guidelines and the proof of concept for consortium approach in capacity building in watershed program.

- Establishment of district/cluster livelihood resource centres (D/CLRCs). and providing professional & anchoring support.
- Developing pool of resource persons.
- Creating favorable policy support to capacity building agenda.
- Developing training modules.
- Providing techno-managerial support services to the program components.
- Undertaking action research projects (studies, innovations, field level experimentations, etc).
- Providing monitoring support to the program.



MV Ramachandrudu, WASSAN, made presentation on innovations in capacity building efforts in the context of watershed development projects in India. He defined capacity building as more holistic than just training, including several components such as creating, enabling policy support and operational norms; development of skills, attitudes and knowledge base; experiential learning; communication and so on. Then, he narrated good experiences on capacity building processes in watershed development projects facilitated by Civil Society Organizations (AKRSPI; Relagaon Siddhi; MYRADA; WOTR) in India.

MV Ramachandrudu shared experiences of DANIDA's Watershed Development Programme (DANWADEP), which had a special focus on capacity building inputs and experimented in Madhya Pradesh, Karnataka and Orissa. He mentioned that a clear strategy emerged from DANWADEP's initiative for capacity building which designed and focused on improving productivity; people's participation; improving know-how; improving sustainability and project management. He also shared the learnings from Support Voluntary Organization (SVO) concept in CAPART and MYRADA initiative for establishing support organization. He elaborated that formal space for SVO in development program has generated a new set of experiences in watershed development projects in capacity building agenda. He briefly narrated the experiences on capacity building processes in Watershed Development Projects in Andhra Pradesh where he quoted District Capacity Building Centers in APRLP, working group for capacity building at state level comprising of Commissionerate of Rural Development (CRD), AP Academy of Rural Development (APARD), MANAGE, a national level resource agency and WASSAN, Network Based Capacity Building Support led by WASSAN and an approach facilitated by ICRISAT.

MV Ramachandrudu presented role of donors and project authorities, policy frame work and administrative arrangements and vision of NGOs as enabling factors behind the initiatives on capacity building approach in watershed programs

VK Reddy, MANAGE, presented framework for designing modules for ToT and capacity building managers which is one of the major objectives of the project. He delivered the presentation in two parts, first component is on framework for analysis of training needs of trainers or capacity building for managers whereas second component concentrates on framework for reviewing modules. The following objectives are mentioned for the study on analyzing training needs of trainers or capacity building managers:

- understand the background of trainers or capacity building managers in terms of education, experience, training received;
- identify the roles and tasks to be performed by trainers or capacity building managers in training for watershed management;

- assess the expected competencies for performing various roles and tasks;
- analyze gaps and training needs vis-à-vis roles and tasks.

VK Reddy explained the methodologies for the study that includes collecting primary data through questionnaires with a sample of trainers or capacity building managers for their perceptions on tasks and competencies for capacity building and also performance levels, training needs and priorities with heads of training institutions and senior personnel of the department. He further elaborated that the study team collects secondary data on training programs being organized by trainers; details on watershed projects handled by capacity building managers and feedback forms of training programs for finalizing the training needs in watershed programs.

It is proposed to cover the analysis of existing approaches and strategies in capacity building; analysis of training designs; training materials and manuals; feedback on training programs modules and post training evaluation.

- Assess the existing approaches, strategies and programs for training of trainers or capacity building managers.
- Analyze the training designs in terms of duration, coverage, training methods utilized, resource persons, practical or skill orientation, etc.
- Examine the pattern of training background materials or manuals and handouts provided to the trainers or capacity building managers.
- Assess the feedback on the existing modules or designs materials and training methodology.
- Review the experiences in the post-training and utilization of learnings from the training.

Timelines for each activity proposed in the study including field visits, report drafting and testing modules, are presented. It is proposed to complete the study by November 2008.

## Technical Session III

*Chair : PV Veeraraju*

*Rapporteur : S Marimuthu*

MV Manjunatha, from University of Agricultural Sciences, Dharwad, presented capacity building initiatives in Karnataka. He highlighted the relevance of watershed management in Karnataka, pointing the highest acreage under dryland agriculture next to Rajasthan, more than 70 per cent of rural population in Karnataka depending on dryland agriculture and high percentage of drought prone area (79.87 per cent) in the country. With this background, he cited that Government of Karnataka established The Watershed Development Department during 2000. He listed out the various schemes like centrally sponsored schemes, externally aided projects, state sector projects, district sector watershed development scheme, NABARD project and NDDDB projects being implemented under watershed development programs. He presented list of institutions and organizations involved in capacity building for watershed management in Karnataka (Table 1).

He spoke about the capacity building initiatives by Directorate of Extension of Education, UAS, Dharwad, in the area of watershed management and emphasized that UAS has moved from imparting technical training to adding social agenda and income-generating activities in the training programs.

He said that the impact of training programs among the participants is assessed using a set of evaluation formats. Technical backstopping is possible from state agricultural university (SAU) while reacting to the kind of support rendered by the SAU in capacity building initiatives. He mentioned that selection criterion for trainers in capacity building programs, is based on the requirement of sponsoring agency.

RK Goyal from Central Arid Zone Research Institute (CAZRI) presented capacity building initiatives in CAZRI. He presented profile, mandate and organization structure of CAZRI. He also shared CAZRI's experience in watershed management, including major projects in watershed programs completed in the state of Rajasthan. He highlighted the infrastructure and human resource available with CAZRI for capacity building. The Department of Agricultural Economics, extension and training in CAZRI is responsible for capacity building with following roles.

- Conducting research on impact analysis and improving extension system.
- Identifying indigenous technical knowledge and refining them for adoption.

**Table 1. List of institutions and organizations involved in capacity building for watershed management programs in Karnataka**

Thematic areas	Organizations and institutions involved	State level	District level	Sub-watershed level	Micro watershed level	
Technical	UAS, Bangalore	*	*	*		
	UAS, Dharwad	*	*	*		
	Centre for Continuing Technical Education, Karnataka (CCTEK)		*	*	*	
	Karnataka Livestock Development Agency and KMF		*	*	*	
	BAIF Integrated Rural Development Karnataka, Tiptur		*	*	*	
	District Resource Group			*		
	AA/WA/Live stock Extension				*	
	Assistant/ Gopal Mitras		*	*		
	Karnataka State Regional Remote Sensing Application Center (KSRSAC)					
	Social , Managerial and Financial	Partner NGO – MYRADA	*	*	*	
		Lead NGOs		*	*	
Field NGOs					*	
EDP Agencies			*	*	*	
ISRO – Antrix, Bangalore			*	*		
WDD – SWP- HRD unit Ravi and Iyer CA		*	*	*	*	

- Identifying gaps and modifications considering new trends in dryland farming.
- Conducting training of state officials, farmers and international scientist in arid agriculture.
- Carrying out field level demonstrations on improved technologies.

Training modules are prepared with pre-training meeting with group of trainees for identifying thrust areas, followed by forming suitable modules in consultation with experts in the institute emphasizing practical aspects. He identified following key areas for capacity building in arid ecosystems in watershed management:

- efficient management of rainfall;
- integrated management of farming system based on watershed or index catchments;

- soil water conservation;
- conservation of plant and fauna;
- conservation of forest and grazing lands;
- livestock improvement and management;
- income-generating programs;
- Sensitization of self help groups on hygiene, public sanitation and child health.

Major training modules are dryland farming, integrated watershed management, fodder production, arid horticulture, Jojoba production, agro-forestry, major soils of arid zone, management and planning of audio visual aids, participatory rural appraisal, production technology for coarse cereals, communication technology for transfer of technology, drip irrigation, rodent control for railways, farming system approach for arid ecosystem, pasture and fodder production in arid and semi arid areas, food preservation, dairy management and entrepreneurship development based on agro industries. He also shared other means of capacity building like Kissan Call Center, Agricultural Technology Information Centres (ATIC), KVK, e-agriculture, front line demonstrations and village service centres carried out by CAZRI. Major capacity building activities undertaken by CAZRI are:

- organizing vocational training programs in agronomy, horticulture, plant protection, agro forestry, home science and animal husbandry;
- organizing training programs for in service extension personnel of line departments and NGOs;
- conducting frontline demonstrations in oilseeds and pulses and other improved technologies;
- on-farm testing of improved land use systems.

He shared the strengths, weakness, opportunities and threats (SWOT) analysis for capacity building carried out by CAZRI, where main points emerged are poor linkage, low potential for resources and overlapping research and development activities between institutions. He concluded with a presentation, pointing important thematic areas for capacity building in arid zones like income-generating activities, gender-based capacity building, livestock management and training on indigenous technical knowledge on water harvesting structures (*khadin*, *nadis* and *tonka*) for non watershed areas.

PK Singh made presentation on current status of capacity building measures in watershed development programs in Rajasthan. He mentioned that Government of Rajasthan established the Soil Conservation Training Centre at College of Technology and Engineering, Udaipur, in 1975 to impart trainings

to the officers, field workers and communities with model watershed of 173 ha in the premises to demonstrate the various technologies of soil and water conservation and rainwater harvesting.

PK Singh explained current status of capacity building measures in watershed management and brought out important issues like not utilizing money allotted under capacity building, lack of details on training modules including duration and content and lack of quality staff in off campus trainings. He revealed that non convergence of organizations for capacity building and lack of functional linkage with government departments and research institutes and emphasized on strengthening support facilitation organization and master trainer organization at district level. He concluded the presentation, quoting the following issues in capacity building in watershed programs.

- Strengthening institutional arrangements (VWC, SHG, UG, WA) and building capacity of the institutions.
- Formation of support facilitation organization (SFO) having members from project implementing agency and research institutes for capacity building.
- Development of master trainer organizations (MTOs) at district level to take the responsibility of training project implementing agencies.
- Identifying MTOs with proven record in terms of social mobilization and technical competence.
- Developing mechanisms for capacity building programs and service institutes.

## Group Discussions

The participants were formed into two groups for discussing consortium modalities in pilot states, mainly what services would be provided by the state consortium and what is the added value and criteria for identifying consortium member organizations and the nodal organization.

The group, I facilitated by PV Veeraraju, discussed the possible services that would be provided by consortium. The group internalized the concept of state consortium and discussed in detail, and brought out the following list of support services that would be rendered by state consortium in watershed management programs.

- Training
- Demonstrations
- Identifying resource persons
- Identifying resource agencies
- Needs assessment



*Fig. 1. Group-I discussing service to be provided by the state level consortium.*

- Facilitating role
- Secondary and primary process documentation
- Sharing material and information
- Organizing exposure visits
- Quality guidelines preparation
- Quality monitoring
- Networking
- Handholding support
- Impact assessment
- Process documentation
- Recognition of the consortium
- Policy advocacy
- Preparation of operational guidelines and training material
- Awareness creation / publicity
- Facilitating linkages

The group further discussed the value addition in the support services offered by state consortium and came out with the following points in terms of value addition in services.

- Cost effectiveness
- Single window
- Platform for knowledge management
- Stronger voice for capacity building
- Synergies
- Credibility of information
- Conflict resolution between service provider and also users
- Transparency
- Up scaling
- Quality assurance

The outputs from Group-I were presented by PV Veeraraju before the participants and discussed elaborately and tried to consolidate the support services under a few components. It was finalized to merge under a few major activities like training, demonstration, hand holding and facilitation.

- The participants discussed what services that state consortium cannot do and defined consortium as functional consortium for capacity building.



It was emphasized that mainly capacity building competency would be considered while identifying members and not based on the other services.

- The participants discussed the training service of the consortium and identified specific topics under training component like social and process aspects, livestock improvement and management, productivity enhancement, soil water conservation, training of trainers, training needs assessment, monitoring and evaluation, sensitization of stake holders, income-generating activities, finance management (farmers) and equity and gender issues. However, the participants agreed that contents and topics are dynamic and site specific for training program.
- The participants elaborately discussed how quality is assured for the services offered by the state consortium. The members accorded that the quality assurance goes with selection of quality members and embedded mechanism in the consortium for checking quality, especially for resource materials.



*Fig. 2. Facilitator initiating the discussion on selection criteria for nodal agencies.*

The Group-II, facilitated by *Bharati Joshi*, discussed the criteria in detail for identifying or becoming member in state consortium. The group presented the criteria and finalized the following criteria:

- state based organization with proven track record in at least in one of the major service areas;
- willingness to share the information with the partners;
- voluntary membership;
- organization should nominate contact person responsible for this work;
- willingness to sign MOU with the partners and with the state department;
- availability of technical expertise or capability in the relevant area.

The members discussed the criteria identified for selecting nodal agency for the state consortium and brought the standards for establishing nodal agency:

- authorized to manage the public funds and receive funds from government;
- willing to change;
- expertise and experience in capacity building (having mandate of capacity building);
- trust of state directorates;
- track record of working with other organizations;
- ability to empathize with and accommodate divergent views;
- fostering the culture of unbiased action or decision making, etc;
- willing to spare time and resources.

The members discussed the expectations from state consortium for establishing national consortium. The messages formed were like sharing experiences and training materials across the state, need of agency at national level to bring institutions, resource persons and mechanisms for monitoring and evaluation.

## Plenary Session

*Chair: Ravindra Singh*

*Rapporteur: KL Sahrawat*

- Evaluation of the workshop and feedback from the participants.
- Desert and non-desert and separate MPUAT state level workshop more useful.
- Higher-level personnel should have attended to provide commitment. Put the material at the website: Lessons learnt (started 1.5 years ago) from the consortium to be put in public domain.
- Should be put in Ministry of Agriculture website, which is a permanent website.
- Technological interventions to be summarize community development, exchange and learn lessons from each other by building community.
- Dimensions for every partner should be fixed and they should be allowed to work and succeed.
- Good workshop for concept building and learning from experience. Better interpretation of failures. Poor representation from Uttarakhand. Follow up with the state government (AP experience is being documented).
- Develop concept and circulate to partners before setting up state specific consortia.
- More opportunities to engage small institutions and NGOs in the future.
- Proceedings of the workshop should be available as soon as possible. Summary results and executive summary to be finalized.

## Glimpses of the Workshop











**GTZ-GOI-ICRISAT-MANAGE Project Launching Workshop for  
Consortium on Capacity Building for Watershed Management**

29-30 April 2008

ICRISAT -Patancheru, India

# Annexure I

## GTZ-GOI-ICRISAT-MANAGE Project Launching Workshop

for

### Consortium on Capacity Building for Watershed Management

29–30 April 2008

C F Bentley Conference Centre (212 Bldg.)  
ICRISAT, Patancheru, India

## PROGRAM

### Tuesday 29 April 2008

0830–0900 Registration

#### Session 1 Inaugural Session

*Chair : Michael Glueck*

0900–0910	Welcome and objectives	TK Sreedevi
0910–0940	Strengthening capacity building for decentralized watershed management	LK Tewari Ravindra Singh
0940–0950	Inaugural address	CLL Gowda
0950–1000	Chairs' remarks	Michael Glueck
1000–1005	Vote of thanks	S Marimuthu
1005–1030	<i>Photograph and tea/coffee break</i>	

#### Session 2 Technical Session I

*Chair : K Thirupathaiah*  
*Rapporteur : Piara Singh*

1030–1100	Capacity building initiatives in Sujala watershed project	Sandeep Dave
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1100–1130	Capacity building initiatives in Rajasthan	LK Sharma
1130–1200	Capacity building initiatives in Uttarakhand	
1200–1300	<i>Lunch</i>	
<b>Session 3</b>	<b>Technical Session II</b>	
	<i>Chair : Sandeep Dave</i>	
	<i>Rapporteur : Ajit Phadnis</i>	
1300–1325	Learnings from consortium approach	SP Wani and TK Sreedevi
1325–1350	Consortium based approach for capacity building in watersheds : APRLP experience	K Thirupathaiah
1350-1415	Experiences and learnings from the consortium approach for capacity building in the area of watershed management in Andhra Pradesh	MV Ramachandrudu
1415–1440	Framework for designing modules for ToT and CB managers	VK Reddy
1440–1447	Role envisaged for Karnataka state consortium	Sandeep Dave
1447-1454	Role envisaged for Rajasthan state consortium	LK Sharma
1454-1500	Role envisaged for Uttarakhand state consortium	
1500–1515	<i>Tea/coffee break</i>	

#### **Session 4      Group Discussions**

*Rapportuers : S Marimuthu and*

*Ch Srinivasa Rao*

*Facilitators : SP Wani and TK Sreedevi*

1515–1715	Brainstorming for consortium modalities in pilot states	
	<ul style="list-style-type: none"> <li>• What services would be provided by the state consortium and what is the added value?</li> <li>• Criteria for identifying consortium member organizations and the nodal organization</li> <li>• Operational details</li> </ul>	



1330–1530 Session of finalizing consortium modalities  
• Consortium partners and leader  
• Details of capacity building topics format  
• Logistics of capacity building initiatives by the consortium

1530–1545 *Tea*

## Session 8 **Plenary Session**

*Chair* : Ravindra Singh

*Rapporteur* : KL Sahrawat

### **Rapporteurs' Reports**

1545–1550	Session – II	Piara Singh
1550–1555	Session – III	Ajit Phadnis
1555–1600	Session – V	AVR Kesava Rao
1600–1620	Session – IV, VI & VIII	S Marimuthu
1620–1625	Chair's remarks	Ravindra Singh
1625–1630	Vote of thanks	S Marimuthu

# Annexure II

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## **Annexure III**

### **PowerPoint Presentations**





**GTZ-GOI-ICRISAT-MANAGE**  
*Project Launching Workshop*  
*for*  
*Consortium on Capacity Building*  
*for Watershed Management*

**29-30 April 2008**  
**ICRISAT, Patancheru, India**




**Objectives**

- To internalize the concept of capacity building consortium for decentralized watershed management amongst the pilot state stakeholders
- To share the experiences of watershed consortium approach in Andhra Pradesh
- To finalize the modalities of forming CB consortium in three pilot states viz., Karnataka, Rajasthan and Uttarakhand



**Expected Outputs**

- Internalization of the consortium approach for capacity building with the participants from three pilot states
- Discussing the modalities for consortium formation, objective criteria for consortium membership and operational guidelines for capacity building measures
- Agreement from the three states for establishment of consortium and identification of nodal contact person in the state



**Thank You**



## Strengthening Capacity Building for Decentralised Watershed Management

A Partnership Project of



Rural Resource Systems Division  
Department of Agriculture & Cooperation  
Ministry of Agriculture  
Government of India



Natural Resource Management Programme  
German Technical Cooperation (GTZ)  
India

## What do we understand by Capacity Building?

Capacity building is a process to strengthen the abilities of people, organisations and systems to make effective and efficient use of resources in order to achieve their own goals on a sustainable basis.



**Capacity Building is more than training!**

## Project components

1. Strengthening state level institutions and organisations for capacity building service delivery to watershed programmes
2. Development of capacity building system for NWDPPA, including public private partnership approaches
3. Development of a Monitoring, Evaluation and Learning system for NWDPPA
4. Knowledge sharing and dissemination of learning with service providers, policy makers, implementers and other agencies involved in watershed management

## 1. Strengthening state level institutions and organisations for capacity building service delivery

- Establish and support state level consortium of capacity building service providers
- Design and test appropriate Training of Trainers (ToT) modules for watershed programmes
- Design and test module for orientation of Capacity Building Managers at the national, state and district levels
- Technical support (experts, consultants, training, etc.) to the state consortium partners for using and offering the ToT, self learning tools and orientation programme for Capacity Building Manager

### 2. Development of capacity building system for WSM programmes, including PPP approaches.

- Design and test a Quality Management standards and certification system for the service providers (NGOs, Training Institutes) under watershed programmes
- Design / adapt a capacity building process for the service provider leading eventually to certification
- Develop public-private partnership (PPP) approaches for NRM
- Technical support (e.g. experts, consultants, training, etc.) to selected states for designing of Capacity Building system for watershed programmes
- Analyze the project learning to design a national strategy for CB for watershed programmes

### 3. Development of a Monitoring, Evaluation and Learning system for WSM programmes

- Review and compilation of good practices in planning and M&E of watershed programmes
- Adapt the learning from good practices to design a MEL system for NWCFPPA and pilot it in one committed state (resource commitment)
- Support WSM departments and institutions in selected states to implement the MEL system
- Disseminate the system for adoption by other states

### 4. Knowledge sharing and dissemination of learning

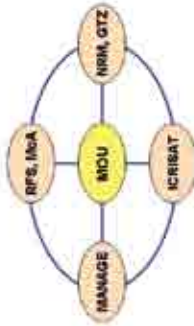
- Establish a functional knowledge network of CB service providers and institutes
- Organize annual workshop with the network involving national and state level officials of watershed management programmes
- Document and disseminate learning and best practices for CB in watershed programmes
- Establish a consultative forum at the national level to link up the learning and best practices with the decision makers
- Organize exposure visits on capacity building

### Scopes of Project Interventions

- Given the limited project resources and time period, the project would focus on bringing our promising approaches and developing instruments for capacity building at the state level
- Development of tools and instruments for capacity building would be done in selected states
- Roll out and implementation of such instruments should happen within the watershed programmes with state resources
- Therefore, resource commitment from the states would be crucial for implementation of the project at the state level
- Such resource commitment can be made out of the allocation for capacity building at the state and district headquarters levels

**Resource commitment by states necessary for capacity building!**

### Project Implementation Consortium



The RFS Division, GTZ-NRM Programme, ICRISAT and MANAGE, by signing this MOU agree to work together as partners towards a common Project objective of "strengthening the capacities and networking of the central, regional and state organisations for decentralised watershed management".



### State Consortium of Service Providers under Public Programmes for Watershed Management

### State Level Consortium of Service Providers

- Recommended by the Project Steering Committee for delivery of capacity building services at the state, district and sub-district levels under the WSM programmes
- Three states – Karnataka, Rajasthan and Uttarakhand selected as pilot states under the project
- Some learning and experience of state level consortium for WSM programmes already available from Andhra Pradesh
- ICRISAT has good experience of working with consortium approach




### Perceived benefits of consortium of service providers

- Effective and efficient implementation of WSM programmes requires multidisciplinary skills and competencies. It is not always possible to get all the required skill sets in one organisation.
- In a consortium, organizations and individuals with different competencies and resources work together for achieving common objective.
- Consortium partners spread across the state can pool resource persons to offer need based and decentralised services in WSM programme.
- Easier technology transfer to target group through PIA's access to the consortium's knowledge pool
- Innovations and knowledge management. The consortium becomes vehicle for transporting innovations and good practices to the public programmes.



The 2008 Common Guidelines also mentions 'Consortium of resource organisations to provide necessary capacity building support at various levels'



Expected Outputs of the Workshop

- Participants understand and internalize the consortium approach for capacity building
- Modalities for state level consortium formation are discussed and developed:
  - guidelines for consortium membership
  - operational guidelines for capacity building measures
- Agreement from the states for consortium formation and identification of nodal contact person in the state







# Thank You!



# Capacity Building on Participatory Watershed Development



## PSI's Mission

PSI is an organization of scientists, engineers and social workers, dedicated to the task of nation building

Our role is to help eradicate poverty through the empowerment of the poor and the productive, sustainable and equitable use of human and natural resources



## Our Approach



- Identification of felt needs
- Researching solutions with community
- Communicating possible solutions
- Mobilising and Organising the community
- Capacity building



- Provide Development support during implementation
  - Periodic review of the outcomes
- Emphasis on:
- Women's & Worker Sections' Involvement in development
  - Self-Reliant Development

# Centre for Participatory Watershed Development

ESTABLISHED: October 1996

**OBJECTIVE:** To extend training and development support for participatory watershed development work

**ACTIVITIES:**

- Project Implementation Agency (PIA)
- CAPART mandated TSVO
- Runs watershed programme in H.P. & Uttarakhand with support from SRTT, Mumbai
- Active in 27 micro-watersheds of H.P. & Uttarakhand covering an area of about 14,000 ha



Development Studies



Environmental Quality Monitoring



Natural Resource Management (CPWD)



Disaster Mitigation & Response



## Operational Units

**Training Unit (TU)** - Provides foundation and short special courses on participatory watershed development



**Development Support Unit (DSU)** - Provides technical and managerial assistance in the field to selected PIAs



**Research Unit (RU)** - Conducts research to fill gaps in knowledge that are essential for enhancing the effectiveness of watershed development.

**Communications Unit** - Prepares and produces training and communication materials. It also arranges for training in folk communication media.



## Training Courses Offered



- Foundation course for field level workers & WDT members
- Short duration training for field level workers & WDT members
- Orientation course for members of PRIs and Watershed Secretaries



- Orientation courses for Project Officers, BDOs, and Departmental Officials
- Orientation Camps for SHGs and UGs.
- Orientation Camps for Mahila Mangal Dals

## Training Courses Offered (Contd.)



Exposure tours to successful programme areas for CBOs as well as programme functionaries

## Training : Approach

- Training Needs Assessment
- Curriculum Designing
- Programme Schedule for structuring of sessions
- Identification of Resource Persons (In-house and External)
- Training Materials (Lecture Notes, Manuals, Films)
- Logistical Arrangements (Venue, Board and Lodge)
- Review Exercises (Daily and Overall)
- Feedback & Internal Evaluation – Effectiveness and Future Needs

## Training Design for Different Target Groups

S. No.	Shortcomings	Training Needs	Methodology and Tools
<b>A</b>	<b>Government Functionaries</b> Watershed Concept/ Operational features /Top down approach /Attitude & Behaviour	Watershed concepts /Institutional Structure & Operational Features /Attitude and Behaviour change /Mechanism of monitoring & evaluation /Process Management System.	Orientation /Lecture cum discussion /Exposure Visits
<b>B</b>	<b>Project Implementation Agencies</b> Limited focus on issues of equity and role of women	Watershed : Concept, Objectives and principles /Institutional structure & operational features /Issues: Participational, equity, gender, sustainability, contributions /Role and responsibilities, of PIA, WDT and VJ in Finance, Reporting, Monitoring & Evaluation	Workshop /Exposure Visits /Interaction with PIAs



S. No.	Shortcomings	Training Needs	Methodology and Tools
<b>C</b>	<b>Watershed Development Team Members</b>	Basic Foundation Course (BFC) Training Methodologies Communication skills (including traditional and folk media) Emphasis on empowerment of women and weaker section	Practical Training Field visits Classroom aspects Group exercises Posters, Manuals Audio-visuals
<b>D</b>	<b>VDC and WC members</b>	Operational Features Roles and Responsibilities Systems Approach	Exposure visits to good w/s dev. prog. Field interaction with different w/s commit. Demonstration of successful methods Use of traditional and folk media
<b>E</b>	<b>Watershed Secretary</b>	Administrative Systems	-do-

S. No.	Shortcomings	Training Needs	Methodology and Tools
<b>F</b>	<b>Watershed Volunteers</b>	Planning Survey Techniques	Exposure visits to good w/s dev. prog. Field interaction with different w/s commit. Demonstration of successful methods Use of traditional and folk media
<b>G</b>	<b>Self-Help Groups &amp; Users Groups</b>	Group Modalities Recording	-do-
<b>H</b>	<b>Women</b>	Neglected Group Group Management Accurate keeping Maintenance of records	-do-

## SUMMARY COURSE CONTENTS

### 1. Basic Training Course for Field Level Workers (WDT/MDT)

- Module I : Introduction to watershed conservation and development (4 days)
- Module II : Community mobilisation and Rural communication techniques (8 days)
- Module III : Micro-planning including survey methods and PRA/PRM techniques (10 days)
- Module IV : Soil and water conservation including field training (15 days)
- Module V : Process management systems (8 days)

### 2. Orientation Course for Project Officers, BDOs and Departmental officials

- Day 1: Introduction to Watershed Development - Basic Principles, Case Studies of successful rural development programmes
- Day 2: Watershed Development Programme - Design and Administration, Organisational set-up, Modalities of SHGs, UGs and WC.
- Day 3: Attitude and Behaviour, Role of Communications in Watershed Development
- Day 4: Holiday
- Day 5: Exposure visit to villages under Doon Valley Integrated Watershed Management Project
- Day 6: Soil and water conservation - Problems, Principles and Techniques, Visit to Sahaswadhara watershed and CSWCRTII Museum
- Day 7: Work Schedule, Budget Formulation, Recording and Reporting Systems, Success Criteria, and Review.



### 3. Orientation Course for WC Members and Panchayat Members & Secretaries

- Day 1: Introduction to Watershed Development: Basic Principles and Successful Case Studies
- Day 2: Watershed Programme - Organizational set-up: Roles and Responsibilities of SHGs, UGs and WC
- Day 3: Soil and water conservation: Problems, Principles and Techniques
- Day 4: Holiday
- Day 5: Accounting systems for SHGs and UGs and WC
- Day 6: Accounting systems (contd.), Shramdan, Gramkosh and Benefits sharing
- Day 7: Process Management Systems: Work Schedule, Reporting and Recording Systems, and Review

### Trainee Days Generated

YEAR	TOTAL PERSONS TRAINED	TRAINEE DAYS GENERATED
1996-97	28	631
1997-98	72	1811
1998-99	154	2625
1999-2K	192	1691
2000-01	993	4758
2001-02	1052	4379
2002-03	1880	6589
2003-04	1856	5183
2004-05	3436	8598
2005-06	763	3708
2006-07	940	5954
2007-08	392	3609
<b>1996-08</b>	<b>11767</b>	<b>49536</b>

PIAs – Uttar Pradesh, Uttarakhand, Jammu and Kashmir, Himachal Pradesh, Chhattisgarh, Jharkhand, Bihar, New Delhi, Haryana

### Training Materials Published

1. A set of seven poster depicting the concepts and principles of watershed development
2. Do-it-yourself manuals in Hindi on
  - (a) *Acta Levelling Seekhen*
  - (b) *Acta Khad Banaye*
  - (c) *Bachat evam Rin Samooch*
  - (d) *Shri dhan lagata utpadan badhao*
3. Films : Our Village Our Plan, Hamirpur Watershed – A success story, and SRI



### Pilot/Innovative Projects

- Low cost greenhouses to demonstrate cultivation of off-season vegetables
- Development of low cost hydraulic ram pumps for lift irrigation
- Promotion of System of Rice Intensification (SRI)
- Demonstration of different composting techniques
- Establishment of silt and discharge monitoring stations in different watersheds
- Monitoring of stream water quality in different watersheds
- Study of work patterns of different categories of women in the watersheds of H.P. and Uttarakhand

### Development Support Provided

- The DSU of the Centre has provided field support to PIAs undertaking watershed development programme in Chattisgarh, H.P., Uttarakhand, and Uttar Pradesh
- Development support is extended for community mobilization, formation of village level institutions and their capacity building, preparation of action plan and implementation.
- One field visit (6-8 person days) is made every alternate month to the selected watershed of the PIAs by the DSU team.
- The WCT of the PIA usually reports to the DSU at FSL once in two months.

Thus development support extended to each PIA ranges between 50-70 person days on an annual basis.

### Institutions Availing Services for Capacity Building

- CAPART supported PIAs
- SRTT supported PIAs (Himmothan Pariyojna)
- DRDAs of Himachal Pradesh (JWDP and Haryali)
- H.P. Mid Himalayan Watershed Development Project
- Horticulture Departments, HLP (Horticulture Mission)
- Watershed Management Directorate, Uttarakhand (UDWDP)
- Agriculture Department Of Uttarakhand (NWDPP)
- Partners of Church's Auxiliary for Social Action (CASA)
- Partners of Development Alternatives (DA)
- Chattisgarh Tribal Development Office

### Faculty & Staff

1. Debashish Sen
  2. Dr. K.S. Chauhan
  3. S.P. Chaturvedi
  4. Anita Sharma
  5. Rajesh Kumar
  6. Manaswar Ali
  7. Sahil Das
  8. Ajay Joshi
  9. Rajesh Sharma
  10. Hira Lal
  11. Sapna Phuradwaj
  12. Rajendra Bansal
  13. S. N. Goswami
- Director, Agricultural Engineering  
Co-Director (Hon), Civil Engineering  
Agriculture  
Women's Empowerment  
Agriculture Engineering  
Soil and Water Conservation  
PEA, PRM & Project Management Systems  
Community Mobilization  
Appropriate Technologies  
Nurseries and Afforestation  
Self Help Groups  
Documentation  
Forestry

### Other Institutions in Uttarakhand Providing Services on Capacity Building in Watershed Development

- G. B. Pant Institute of Himalayan Environment and Development, Kosi Katarmal, Almora
- Central Soil and Water Conservation Research and Training Institute Dehra Dun
- Watershed Management Directorate Dehra Dun
- Uttarakhand Institute of Rural Development Rudrapur, Udham Singh Nagar

### **Key Issues for Capacity Building in Uttarakhand**

- Conservation of Water Resources
- Fodder and Horticulture Development
- Organic Farming (Including SRI)
- Soil and Water Conservation
- Women's Mobilisation
- Micro-enterprise
- Financial Linkages

# **Thank You**



## **PSI**

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**252, Vasant Vihar, Phase I**

**Dehra Doon - 248 006**

**Uttaranchal**

**INDIA**




**SUZALA WATERSHED DEVELOPMENT PROJECT**  
 Watershed Development Department  
 Karnataka, India

## Capacity Building Initiatives in Sujala

- Water Resource
- Integrated Approach
- Participatory
- Gender & Equity
- Technology
- Transparency




SUZALA WATERSHED PROJECT LOCATION



### What is Capacity Building

Capacity Building is the process of strengthening procedural, organizational and institutional capabilities of individuals, groups, institutions and organizations involved in the project.



### Importance of Capacity Building

- Disseminates information and objectives
- Implants new concepts in the minds of stakeholders
- Develops knowledge and enhances awareness
- Equips the stakeholders with necessary skills
- Builds a shared vision among stakeholders at various levels
- Develops self-confidence and self esteem
- Enables the attitudinal change process
- Empowers people, enables participation and ensures ownership



## SUJALA WATERSHED PROJECT - OVERVIEW

◆ DISTRICTS : Kolar, Chikkaballapur, Tumkur, Chitradurga, Dharmar & Haveri

◆ NO. OF SUB-WATERSHEDS : 77 (4.29 lakh Ha Treatable area)

◆ NO. OF VILLAGES : 1270

◆ NO. OF HOUSE HOLDS : 4 lakh families

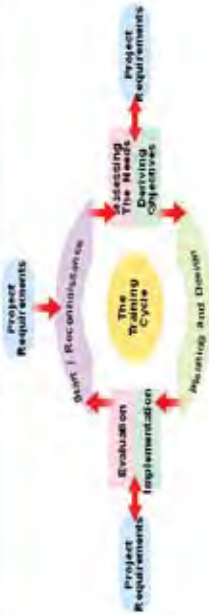
◆ PROJECT PERIOD : Sept. 2001 – March 2009

◆ TOTAL PROJECT COST : Rs. 504 crores

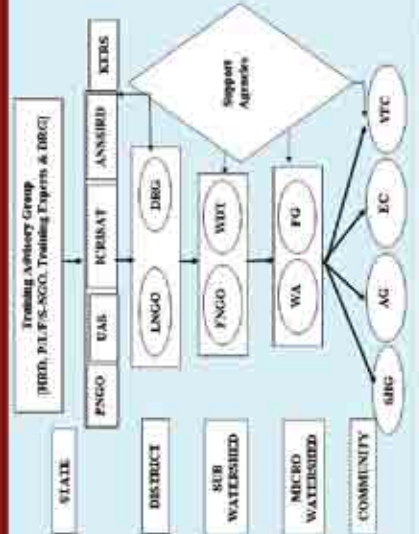


District	Taluk	Villages	Sub watershed	Micro watershed	Total Area (Ha)
Chitradurga	6	127	14	131	106,684
Dharmar	5	79	9	31	49,340
Haveri	4	111	13	118	75,867
Kolar	11	279	22	210	1,02,951
Tumkur	10	375	19	282	1,34,856
<b>Total</b>	<b>38</b>	<b>1,270</b>	<b>77</b>	<b>742</b>	<b>519,720</b>

## TRAINING CYCLE



## FRAMEWORK OF TRAINING MANAGEMENT IN SUJALA



## Objectives of Capacity Building in Sujala

- To Ensure Ownership through Participation
  - People, Public and Private Participation. – SWS, Dept, NGOs
  - Farmers Contribution
  - Management of Common lands and maintenance of assets
  - Approval of Action Plan through Grama Sabha.
- To Ensure Trust & Transparency
  - Planning, Execution and payment through SWS-EC
  - Payments through Cheques
  - Implementation details depicted through wall writings
- To ensure Equity & Social Inclusiveness
  - 50 % reservation to women in SWS-EC
  - Women being one of the office bearers of SWS-EC
  - 95% of the IGA beneficiaries are women
  - Representation for vulnerable sections in the SWS-EC
  - Differential rate of contribution
  - Capping on per farmer investments



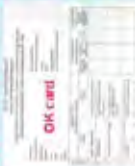
### Major Types of Capacity Building in Sujala

- In-house Training
- On-Job training
- Village Based Training
- Exposure Visits
- Teleconferences
- Radio Programmes
- TV Programmes
- Wall Paintings



### Major Themes of Capacity Building in Sujala

- Social Trainings
- Technical Trainings
- Managerial Trainings
- Skill Based Trainings
- Quality Control, OK card



### Different Stakeholders Trained in Sujala (Numbers)

- Members of Community Based Organizations (2,99,938)
- Members of Panchayat Raj Institutions (2,201)
- Field NGOs (1,122)
- Specialist NGOs (141)
- Lead NGOs (25)
- Partner NGO (5)
- District Level Review Committee Members (191)
- Bankers (252)
- Watershed Department Staff (882)
- Subject Matter Specialists (12)
- Support Institutions (62)



### Training Conducted

- Original Training Modules: 107 modules
- SHGs-9, AGs-11, EC-10, LNGOs-13, PNGO-7, UAS-11, Quality Control-6, Livestock-11, Demonstration-3, IGA-3, Accounts-3, M&E-3, VPC-6, Others-11



- Refresher Trainings: 3 modules
- Effective Communication Skill
  - Book writers training to CBOs
  - Quality Control Training

Percentage of allocation to Capacity Building in Sujala- 15%

### Training Modules

- Training Modules to Staff (8)**
- Orientation on Sujala, PRA, Leadership and Decision Making, SWAP preparation, Quality Control, IPM & INM, Technical training on S&WC, Farming systems.
- Training Modules to NGOs-10**
- Orientation on Sujala, CBO formation and functioning, PRA, Book keeping and financial Management, Gender and Equity, Leadership and decision making, Linkages, SWAP preparation, EAP and SEDP, Vision Building & Withdrawal strategy.
- Training Modules to CBOs-10**
- Orientation on Sujala, CBO formation and functioning, PRA, Book keeping, financial Management, Gender and Equity, Leadership and decision making, Linkages, SWAP preparation, EAP and SEDP, Technical training, VBT on livestock.



**Training And Publicity Materials In Sujala**

- SHG reading material-86500
- AG and EC reading material-1,71,000
- Social Training Manual- 800
- Posters-87,000
- Manual on book keeping & Financial Management-1250
- Training Charts-6000
- Technical reading books-500
- Flip Charts-250
- Books for Teleconference-33300
- Brochures-14,000
- Sujala at a Glance-2200
- DOs Don'ts in SWAP preparation-2000
- Sujala Magazine-1850
- Operational Manual-3500
- Manual on Environmental and Social Aspects-2000
- Income Generation Activity manuals-500
- Livestock Manual-46000
- Training Films-7
- Documentary-3
- Audio cassettes-1

## TRANSPARENCY AND ACCOUNTABILITY IN SUJALA

Transparency	Accountability
Open house monthly meeting	Book keeping & auditing
Wall paintings	Participatory implementation
Beneficiary passbook	Monitoring - CBO's, WDD, ME&L
Evidence from satellite images	Audio / Teleconference

### Capacity Building for Productivity Enhancement

**Soil Nutrient Mapping**

**Meteorological Information to farmers**

**Farmers Field School**

**Integrated Nutrient Management**

### Impact of Capacity Building in Sujala

- Improved business
- Empowerment of Women
- Increased Transparency
- Cross Learning
- Emerging Leadership
- Improved knowledge in book keeping and financial management
- Enhanced self confidence
- Equity and Gender Sensitivity
- Skill improvement
- Improved livelihood
- Improved awareness on environment
- Better implementation of the project activities
- Institutional sustainability

**Spillover Impact of Capacity building in Sujala**




National Productivity Award 2005-06



National Water Award 2006-07

**Earth Care Award 2008**



**THANK YOU**



## STATUS OF CAPACITY BUILDING MEASURES IN RAJASTHAN

### Salient Features:

- Total Geographical Area : 342 Lakh ha.
- Rainfall : 100 mm – 1100 mm
- Watershed Development Projects Under Progress:
  - Drought Prone Area Programme
  - Desert Development Programme
  - Integrated Wasteland Development Project
  - National Employment Guarantee Yojna
- Surface Water Resources : 1.16 %
- Per Capita Water Availability : 842 Cum

## CURRENT STATUS OF CAPACITY BUILDING MEASURES

- ❖ The current status of capacity building in the state is very poor.
- ❖ The funds allocated in various watershed projects towards capacity building are not utilized and unspent.
- ❖ WWC/ SHG's/ User's Group formed at the time of project implementation are nonfunctioning.
- ❖ Resource centres are not available in Rajasthan.
- ❖ Watershed committee is active only during execution of watershed development projects.
- ❖ Trainings are provided but there is no module for the type and duration of trainings for field staff and community.
- ❖ Mostly off campus trainings are conducted in which resource person's are not even qualified for conducting such trainings.

## Institutional Aspects

- ❖ Activities related to community mobilization process and Institutional strengthening arrangements in the state is lacking.
- ❖ There is no convergence with other organizations for capacity building.

## Technical Aspects

- ❖ Technical backstopping is very poor.
- ❖ Soil and Water conservation measures are not properly designed as per technical recommendations and norms.
- ❖ Availability of less technically qualified staff in the watershed projects and poor technical competence.

## Monitoring System

- ❖ Lack of proper monitoring system in one of key weakness of the watershed programme.
  - Process monitoring
  - Technical monitoring
  - Social audit
- ❖ Lack of exposure visits of field staff and community.

## Initiatives being taken by Government

- ❖ Initiatives are being taken for the establishment of State Level Nodal Agency (SLNA) which will work under the leadership of National Rainfed Authority (NRA) for capacity building.

### Training Needs

- ❖ Issue of strengthening institutional arrangements (VWC, SHG, UG, WAJ) and building capacity of these Institutions.
- ❖ Formation of Support Facilitation Organization (SFO) having members from expert agencies even from PIA for capacity building.
- ❖ Development of master Trainer Organizations (MTO's) at district level to take the responsibility of training PIAs within the district.
- ❖ MTO's must have proven record in terms of social mobilization and technical competence.
- ❖ Need of physical, financial and social audit.
- ❖ Training schedules for various activities should be developed well in advance.
- ❖ Need for development of Resources Centres for the State.
- ❖ Training of trainers to build trainers capacity.

### Organizations Involved in Watershed Trainings in Rajasthan

- ❖ College of Technology and Engineering, MPUAT, Udaipur
- ❖ Rajasthan Agricultural University, Bikaner
- ❖ Krishi Vigyan Kendra, Located at District Level
- ❖ Central Arid Zone Research Institute, Jodhpur
- ❖ Indira Gandhi Panchayati Raj Institute, Jaipur
- ❖ Non Governmental Organizations working on Watershed Management.

# Thanks

## Capacity Building Measures for Watershed Management in Rajasthan

Er. R.K. PAL  
Zonal Director Research  
Agricultural Research Station  
Rajasthan Agriculture University  
Navpau (Ahwar) Rajasthan

### DURATION OF RAINY SEASON : 1973-1987

Year	Date of onset of monsoon	Date of withdrawal of monsoon	Duration (in days)
1973	02.07.1973	19.10.1973	101
1974	01.07.1974	12.09.1974	74
1975	21.06.1975	25.09.1975	96
1976	12.07.1976	21.09.1976	71
1977	24.06.1977	26.09.1977	94
1978	20.06.1978	26.09.1978	99
1979	26.06.1979	23.09.1979	89
1980	22.06.1980	23.09.1980	93
1981	25.06.1981	11.09.1981	78
1982	13.07.1982	15.09.1982	84
1983	04.07.1983	16.09.1983	84
1984	02.07.1984	23.09.1984	23
1985	13.07.1985	15.09.1985	84
1986	23.06.1986	18.09.1986	87
1987	14.07.1987	19.09.1987	84

Sustaining agricultural productivity, approach of watershed development may play a key role.

### Basic Agricultural Statistics of the State

• Geographical Area	---	342 Sq. Km.
• Forest Area	---	24.51 Lac ha.
• Population	---	5,64,73,122
• No. of districts	---	33
• Villages	---	41,353
• Blocks	---	105
• Tehsils	---	241
• Village Panchayat	---	9,189
• Electrified villages	---	37,172
• Village cooperative Society	---	5,246
• Agro-climatic Zones	---	9

### Details of Land holding and irrigated area

- No. of marginal farmers (0-1 ha) --- 16.1 lac
- No. of small farmers (1-2 ha) --- 10.85 lac
- Above 2 ha. --- 26.58 lac
- Average Land holding (Agricultural) --- 3.96 ha.
- Net irrigated area --- 63,93,276 ha
- Cropping Intensity of the State --- 130%

Land utilization pattern 17,28,6132 ha. (1984) to 30,20,6204 ha. (1994)

### Agricultural Institutions in the State

- Agricultural University — 2
- Agricultural Colleges — 14
- College of Home science — 2
- College of Veterinary & Animal Sciences — 3
- Agricultural Research Stations — 20
- Krishi Vigyan Kendra — 26
- ICAR Research Centres — 17
- Live Stock Research Stations — 9

### Major crop grown and their productivity (kg/ha) in reference to the country

	Muscatel	G. Nuji	Wheat	Barley	Guar	Bajra	Cotton	Cropping intensity
State	990	988	2575	2121	422	458	113	110
Country	860	733	2618	1920	401	810	192	105

This indicates dynamism of the State agricultural Skelton including R & D of the SAU's and farmers role.

### Watershed development activity in the State – WD & SC, 2007

- No. of watershed developed — 4878
- No of SHG — 18796
- Online monitoring of watershed work — 79.43%

### On-going Programme under Watershed Development Activity

- Desert development programme (DDP)
- Drought prone area programme (DPAP)
- Integrated waste land development programme (IWDP)
- National watershed development programme for rainfed area.

### Status of w/s development activities under different programme, 2007-08

S. No	District	Treated area (ha)		Pasture dev. (ha)	
		Target	Ach	Target	Ach
1.	DDP (16 districts)	411403	107940	3516	2363
2.	CDP (10 districts)	78363	54764	500	500
3.	DPAP (11 districts)	131289	32042	8280	2253
4.	CDP (18 districts)	142505	56473	8283	3609
5.	NWDPRA (31 districts)	37602	34091	740	552



S.	District	Plantation						Contd	
		Agro-forestry (No.)		Horticulture (No.)		Afforestation on common land (No.)		Tar	Ach
		Tar	Ach	Tar	Ach	Tar	Ach		
1.	DDP (16 districts)	1742560	405300	323348	114835	843240	776960		
2.	CDP (10 districts)	82000	37000	0	0	7850700	3180000		
3.	DPAP (11 districts)	335000	180680	222305	173735	2037000	1947425		
4.	CDP (18 districts)	333590	343450	328938	212801	2084400	2378050		
5.	NWDPRA (31 districts)	220000	118930	160848	138141	1805600	161500		

S.	District	Livestock development						Water harvesting structure						Contd	
		No. of camps		Health coverage (No. of animals)		A. (No.)		Pucca (No.)		Others (No.)		Tar	Ach	Tar	Ach
		Tar	Ach	Tar	Ach	Tar	Ach	Tar	Ach	Tar	Ach				
1.	DDP (16 districts)	2304	521	151855	41850	2779	315	19489	8918	4441	3823				
2.	CDP (10 districts)	209	146	29006	8856	0	0	2287	746	420	17				
3.	DPAP (11 districts)	851	227	312150	57252	1345	575	474	437	6204	19456				
4.	CDP I (18 districts)	881	192	295370	88252	10758	2724	736	508	4152	3177				
5.	NWDPRA (31 districts)	174	0	4360	360	245	11	971	108	2004	1763				

S.	District	No. of W/S	S.H.G.		
			S.H.G. formed	Amount of saving (lacs)	Amount given from project (lacs)
1.	DDP (16 districts)	3155	7231	152.54	43.5
2.	DPAP (11 districts)	810	2853	118.85	37.62
3.	NWDP (18 districts)	91	3068	239.86	58.64

S.	District	TRAININGS						Contd			
		Trainer training		UGIWG		Community		Education at tour		SHG	
		Tar	Ach	Tar	Ach	Tar	Ach	Tar	Ach	Tar	Ach
1.	DDP (16 districts)	83	62	710	322	1493	2820	388	197	603	431
2.	DPAP (11 districts)	64	33	1828	1067	1833	532	149	87	475	258
3.	NWDP (18 districts)	160	54	895	213	893	338	215	48	462	152

### Status of NGO associated with watershed development work in the state

- NGO
- Few are
- Numerous
- Aravali, Murarka, Marudhara akademy, Pradan, Gomti Devi

### Prudential consideration in watershed management work

- **Partnership of NGO**
- Needs critical consideration in view of Indian socio economic situations.
- **Peoples participations.**
- To make the programme successful 75% energy input of the people of the area without quick return can not be guaranteed.
- **Potential collaborating partners : ARS and KVKs of the area should be made mandatory partner**
- **Socio economic criteria : Matter of land consolidation.**
- **Geographical criteria : 300-600 rainfall annually.**



Suitable orchard development activity in watershed area



Goat breed Improvement programme in watershed area



Cattle breed (Buffalo) Improvement programme in watershed area



Cattle relief camp in watershed area



Cattle relief camp in watershed area

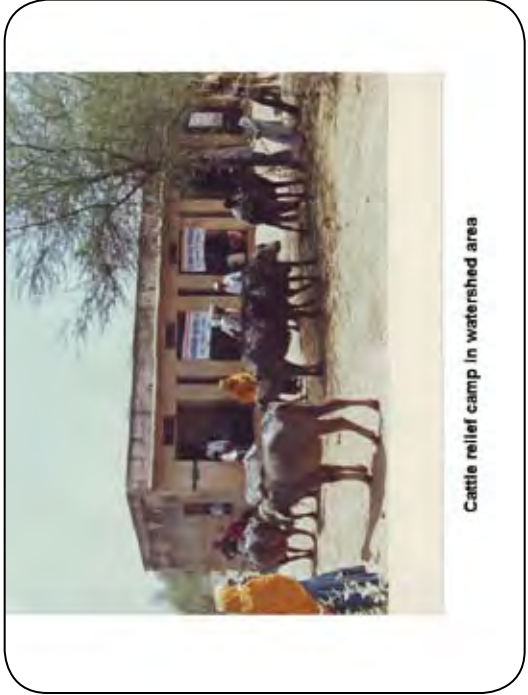


Home science activity in watershed are – Training to village women





Silvi pastarial system in watershed area



Cattle relief camp in watershed area



Demonstration of Agro-Horticulture system in watershed area



Silvi pastarial system in watershed area



**THANK YOU**



**Cattle relief camp in watershed area**



## **STRATEGY & APPROACH**

- ❑ Institutionalization of Capacity Building .
- ❑ Demand driven decentralized CB services.
- ❑ AMR-APARD as Nodal Agency.
- ❑ Consortium of Resource Organizations to establishment of D/CLRCs,
- ❑ DLRCs and CLRCs .
- ❑ C.B Fund management.
- ❑ Development of annual training calendars and action plans in project cycle frame work

## **Consortium-Background**

- A Network of 27 Resource Organizations
- constituted in December 2004
- to provide intensive Capacity building inputs to both primary & secondary stakeholders
- as part of up-scaling of APRLP approaches

## **Consortium-Evolution**

- Phase-I(2001-04)
- 5- Resource Organizations- pilot innovations
- Technical Institutions- handholding support
- Local NGOs- implement innovations
- Phase-II(2004 onwards)
- State level consortium formed to provide support across the state

## Need for Consortium

- Institutional connectivity for Sustainability
- Scope to look at impact of Capacity building systems in implementation
- Space for local innovations
- Develop organic link between DLRC & CLRC
- Documentation of best practices for replication
- Working in partnerships

## Support Services

- Establishment of D/CLRCs and provide professional & anchoring support
- Developing pool of resource persons
- Creating favorable policy support to CB agenda
- Developing training modules
- Provide techno-managerial support services to the programme components
- Undertaking action research projects (studies, innovations, field level experimentations etc)
- Provide monitoring support to the programme

## Achievements

### CB-Support:

- WASSAN, CARE & APMAS are providing professional support to 45 LRCs in 12 districts
- 12 local NGOs are acting as anchoring agencies to 14 D/CRCs
- 22 training modules are developed by various partners of Consortium independently/ in partnerships and are being used at LRCs
- Pool of resource persons are identified, trained and are used for trainings
- WASSAN has taken up process monitoring of CB services in APRLP

## Achievements Cont...

### Techno-Managerial services

- SRTRI- Trainings to rural youth (girls) & APDs on up-gradation of technical skills under Enterprises
- ICRISAT- Trainings primary & secondary stakeholders on Productivity Enhancement
- SMILDA, JK trust & BAFI- Setting up & monitoring of ILDCs
- CRIDA, ANGRAU, ICRISAT- Quality seed supply
- MANAGE & AME- Designing of workbooks for preparation of watershed wise PE action plan
- HID Forum- Visioning of D/CLRCs



## Achievements Cont...

### 3. Action Research Studies

- 15 local NGOs- Special Streams of Projects under CLDP
- ACTION AID- Reducing distress in Migration
- WASSAN- Large Area Approach to Livelihoods (Strengthening Livelihoods based on Social Capital Base)
- Wings- Documentation of best practices
- APMAS-Sub-sector studies on livelihoods

## Achievements Cont...

### 4. Policy Influence

- Developing HR policy for Contract Employees through ASCENT Consultants
- Developing cost norms for trainings at various levels
- Issue of Convergence memos on collaboration arrangements between IKP-DRDA & DWMA
- MoU with AMR-APARD for CB services & recruitment, placements & trainings to secondary stakeholders
- Developing process guidelines for other RD programmes viz., NREGA

## Recent Initiatives

- Expansion of support services to other RD programmes- NREGS- CEC & Partners
- Continued CB support to up-scaled watersheds & LRCs- APMAS, WASSAN & CARE
- NPM- through SERP

## Future

### Opportunities

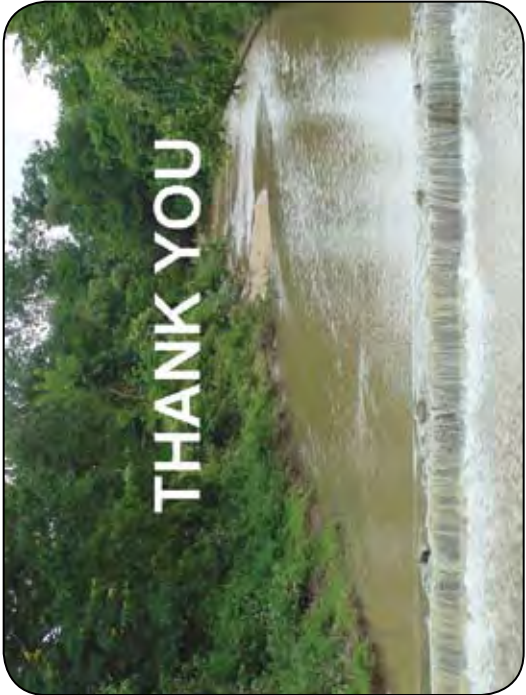
- New Watershed Guidelines- scope for NGOs
- Need for & contribution of consortium established
- A broad GO-NGO Collaboration framework in place

### Concerns

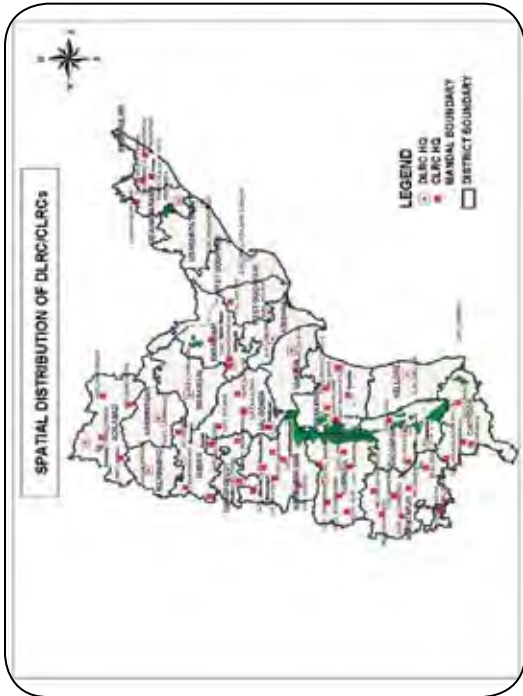
- Standardization of services needed
- Making services demand based- long way to go
- Consortium yet to lead to collaborative initiative

### Support Required

- Facilitating Fund for Consortia



THANK YOU





## Watershed Consortium Approach: Reflections, Learnings and Policy Guidelines



## ICRISAT's Watershed Experience: Lessons Learnt

- Lack of:
- Equity in the benefits to small holders and landless
  - Community participation
  - Monitoring and evaluation mechanisms
  - Holistic approach
  - Scaling-out models and sustainability
  - Lack of technical backstopping

## Institutional Learning: History of Watershed Research at ICRISAT

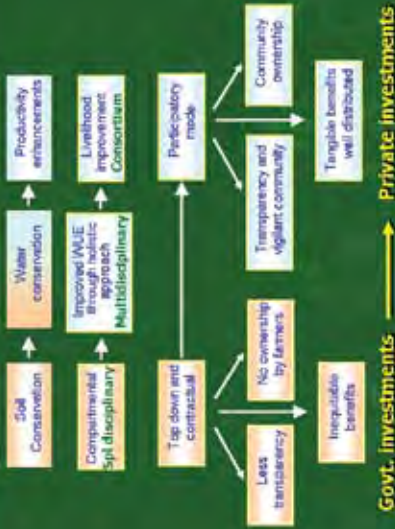
- ICRISAT was the leader to adopt farming systems research – showed remarkable vision
- Scientists faced problems of the hierarchy of scientific disciplines
- Institutional constraints of research hindered realization of the potential
- Gradual shift from technology packages to integrated watershed management in recent years indicated a shift in thinking
- Target of INRM research is not just the farmer or the NARS researchers but changing the thinking of actors in the system

## Watershed Management: Engine of Agricultural Growth and Development in Rainfed Areas

Watershed as entry point for:

- ❖ Increasing productivity
- ❖ Improving livelihoods
- ❖ Protecting environment
- ❖ Empowerment of poor
- ❖ Social capital development

## Journey through Watershed Approach in India



## Meta-Analysis: Biophysical Drivers of Success

- Returns were higher in medium (Rs. 2000–4000 Ag GDP) and low (< Rs 2000 Ag GDP) income states
- Similarly BCR and IRR were higher in rainfall areas of 700 to 1100 mm per year than the low and high rainfall regions.
- Community participation was critical for success and higher returns.
- NGO implemented along with technical supported projects performed better.
- Joint central and state government projects worked better

## Meta Analysis - 311 Case Studies: Impacts

- Increased productivity
- Employment generation
- Improved water level
- Reduced runoff

## Scaling-up of Watersheds

- Convergence
- Collective action
- Capacity building
- PPP-business model to promote high-value crops
- Technical Backstopping



## Main Emerging Messages

Knowledge-based entry point activity is more effective for better and sustainable community participation than the regular cash back EPA currently adopted in the watershed programs

## Main Emerging Messages

Capacity building is the weakest link for scaling-up meaningful watershed programs

## Empowerment of Vulnerable Groups

- Targeted interventions to benefit women and other vulnerable groups
- New science tools
- Participatory approach
- ICT for CB
- Transparency

## Adarsha Watershed, Kothapally, India: A Brightspot





## Integrated Watershed Consortium Model



## Consortium Model: Timeline

- 1995 - Revisited watershed sites for evaluation. On-station Demo experiment initiated
- 1996 - Recognized need to strengthen social mobilization
- 1997 - On-farm trials with NGO partner (BAIF)
- 1998 - District Collector sought help for WSD, training for WS Committee Chairs, Ministers request to demonstrate benefits in village
- 1999 - ADB funds for on-farm evaluation of the model, partnerships expanded, institutionalized, participatory planning, benchmark sites established, scientists located at project sites
- 2000 - Traveling WS, Annual Review & Planning Meeting rotated at sites, Tec. Disseminated to surrounding four villages.
- 2001 - DFID, TATA, Ieps visited Kothipally, Team gained confidence
- 2002 - TATA and APRLP projects for scaling-up, team building, consortium expanded, Coordinator, committees, site and activity coordination, staff posted, projects launched by GAs, policy advocacy, sub-state watersheds established, scaling-out strategy worked out.
- 2006 - CA of impact of watersheds in India, XI Five Year Task Forces
- 2007 - NALP Consortium on livelihoods
- 2008 - CB Consortium for watersheds

## Consortium Model: Timeline

- 2002 - Planning Commission members visited Kothipally, MORD Sec visited, contributed to common guidelines, Farmers Day at IISS, Bhopal, ADB supported II phase for scaling-up
  - 2003 - Scaling-out to satellite WSs, Traveling Workshop, Review & Planning Meeting with expanded partners, GOI Ag. Sec visited, State level Farmers Day at Bundi and district level at other WSs, leading project on Rainfed Agric. for CA on water for food.
  - 2004 - Contributed in National WSC, Interactions with Rajasthan Chief Secretary and other officials, Farmers Day in A.P. with Agricultural Minister as Chief Guest, Karnataka Ag. Minister visited Kothipally, Mak Royal (private industry) joined consortium
  - 2005 - Karnataka WB project requested technical support, National Commission on Farmers identified Consortium Approach and WS as entry point for rural poverty alleviation, Tamil Nadu government formed Mission on Rainfed Agriculture and requested for technical support, Morarji Borax (private industry) joined consortium, Consortium expanded for biodiesel New initiative.
- Currently more than 200 WSs are operated by the consortium

## Drivers of Success – Enabling Factors

### Common Goal

- Demand driven — water scarcity, low crop yields, higher rainfed lands
- Tangible economic benefits to individuals through integrated approach
- Knowledge-based entry point
- Equal partnership, trust and shared vision among the consortium partners

## Drivers of Success – Enabling Factors

- Good local leadership
- Pre-disposition to work collectively for community development
- Transparency and social vigilance in the financial dealings
- Equity thru low-cost structures
- Empowerment – enhanced accessibility of new technologies and knowledge sharing developed local capacity

## Learnings

- Holistic systems' approach increased and sustained productivity and incomes
- New science tools enhanced benefits and efficiency
- Knowledge-based entry point activity enhanced sustainable community participation
- Tangible economic benefits to individuals are must for community participation
- Win-win situation for partners is must along with common goal

## Flow of the consortium approach in watersheds



## Learnings

- Low cost WHSs enhanced equity for benefits
- Partnerships need to be nurtured by the lead partner
- Harness strengths of the partners and empower them to overcome weaknesses
- Trust building measures go a long way for stronger partnerships



## Learnings (Contd.)

- Flexibility and transparency
- Capacity building of partners and sensitization of policy makers helped in building partnerships
- Technical backstopping for developmental projects enhanced benefits substantially
  - budgetary allocations to forge partnerships in research and development projects are needed
- Transactions costs (time and money) are higher for partnership building but higher benefits call for partnerships

## Benefits of Consortium Partnership

- ❖ Creativeness
- ❖ Sustainability
- ❖ Cost effectiveness
- ❖ Win-win solution through empowerment of partners
- ❖ Synergy
- ❖ Faster scaling-up
- ❖ Change in organizational behavior
- ❖ Public-private partnerships are facilitated (multiplier effect)

## Emerging Policy Guidelines

- Holistic approach for improving livelihoods
- Technical backstopping through consortium of research institutions enhanced impact
- Urgent need for policies to regulate groundwater exploitation in rainfed areas – suitable water and energy policies

## Emerging Policy Guidelines (Contd.)

- Cultivation of high water requiring crops such as paddy and sugarcane in watershed areas to be regulated
- Price and market support along with suitable incentives for low-water requiring crops are needed
- More investments through public and private partnerships in rainfed areas to be promoted

## Emerging Policy Guidelines (Contd.,)



- Budgetary allocations for productivity enhancement, micro-enterprises and capacity building are needed
- Knowledge sharing and empowerment of all stakeholders thru water literacy initiative is needed
- Mainstream women in watershed development is must



THANK YOU.



**National Institute of Agricultural Extension Management**  
Rajendranagar, Hyderabad



## Objectives

- Concept
- Guiding Framework
- Process : Tasks, target dates, Responsibilities
- Identification of Key Stakeholders & Focal Persons



## Framework for Analysis of Training Needs of Trainers / CB Managers



Stock taking

Feed back & design

Delivery

Follow up

Hand holding.





## 1. Objectives

- to understand the background of trainers / CB managers in terms of education, experience, training received
- to identify the roles and tasks to be performed by trainers / CB Manager in training for Watershed Management
- to assess the expected competencies for performing various roles and tasks
- to analyse gaps and training needs vis-à-vis roles and tasks



## 2. Coverage of the Study

### 2.1 Background of trainers / CB Managers

- Education qualification
- Experience in Watershed Management
  - In the field
  - In Training
- Training undergone
  - Technical aspects
  - Training methodology
- Details of Training experience in watershed Management
  - Type of training in which involved
  - Subjects dealt with
  - No of sessions in a week
  - Training methods being used



## 2.2 Job and Performance Analysis

- 2.2 Roles and Tasks and Importance
  - \* Identification of Training Needs
  - \* Designing Training Programmes
  - \* Conducting Sessions
  - \* Day-to-day coordination / Training administration
  - \* Preparation of Training Materials
  - \* Evaluation of Training
  - \* Post-Training guidance
- 2.2.2 Frequency of Roles and Tasks Performed
- 2.2.3 Extent of Performance of roles and tasks (Existing)
- 2.2.4 Factors and constraints in performing roles and task



## 2.3 Competency and GAP Analysis

- 2.3.1 Competencies required for performing roles and tasks and their importance
- 2.3.2 Existing level of competencies (adequacy) in technical aspects and training methodology
- 2.3.3 Extent of use various training methods and AV Aids
- 2.3.4 Constraints in use of methods and Aids
- 2.3.5 Suggestions to improve performance and competencies



## Methodology of study

### Primary Data

- Through questionnaires with a sample of trainers / CB Managers on their perceptions on roles tasks and competences
- Questionnaires with Heads of Training Institutions and senior personnel of the department on the performance levels and training needs and priorities

### Secondary Data

- Training programmes being organised by trainers
- Details of watershed projects handled by CB Managers
- Analysis of feedback forms of training programmes



# Framework for Review of Modules



## Framework for Review of Modules

### 1. Objectives

- to assess the existing approaches, strategies and programmes for training of trainers / CB Managers
- to analyze the training designs in terms of duration, coverage, training methods utilized, resource persons, practical / skill orientation etc.,
- to examine the pattern of training background materials / manuals and handouts provided to the trainers and CB Manager
- to assess the feedback on the existing modules / designs materials and training methodology
- to review the experiences in the post-training utilization of learning's from training



### 2.1 Analysis of existing approaches and strategies

- Provisions under guidelines and practice of training approaches and strategies
- Type of training programmes available for capacity building of trainers / C.B. Managers
- Institutions where trainings are organised
- No. of trainers / C.B. Managers trained and gaps





### 2.2 Analysis of Training Designs

- Duration
- Objectives
- Course Coverage
- Training Methods used
- Practical and field orientation
- Extent of coverage of technical, managerial / social and methodology aspects programmes schedules
- Resources persons
- Scope for participation of trainers



### 2.3 Training Materials and Manuals

- Type of background materials provided to trainees
- Type of handouts provided
- Extent of inclusion of case studies / success stories and field studies

### 2.4 Feedback on Training Programmes Modules

- End-course Evaluation of trainees on adequacy, relevance, practical orientation etc.,
- Course Directors Reports
- Perceptions of Head of Training Institutions / Departments and senior officials on the Modules



### 2.5 Post Training Evaluation

- Extent of application of learning's in job situation
- Constraints in application
- Feedback on training modules in the light of application experiences
- Support / handholding required for better application
- Perception of superiors on performance of trained trainers / C.B. Managers
- Suggestions / proposal for improvement



### 3. Methodology of study

- Review of secondary data on training programmes, committee reports
- Analysis of training designs programme schedules
- Analysis of End course Evaluation feedback
- Discussions with course coordinators
- Primary data from trainers / C.B. Managers through questionnaires on the existing programmes / modules
- Perceptions of trainers / C.B. Managers through questionnaires on Post -Training application and experiences
- Discussions with Heads of Training Institutions and senior personnel on existing programmes and proposal for

Activity	Purpose	Deadline
Inception Note	Common Understanding	6 <sup>th</sup> May 08
Pre-Assessment Meet	Agreement on the operations, common understanding	13 <sup>th</sup> -16 <sup>th</sup> May 08
First Field Visit	TNA, jointly with MANAGE	19 <sup>th</sup> -23 <sup>rd</sup> May 08
Second & Third Visits	TNA	4 <sup>th</sup> -14 <sup>th</sup> June 08
Analysis & Drafting of Report	Report finalization - MANAGE	14 <sup>th</sup> -30 <sup>th</sup> June 08
Presentation of Report	Feedback from Expert Group	First week of July 08
Finalising Report & Draft review of Modules	Incorporating feedback into modules' design	Second Week of July 08
Design of Modules for CB Managers	Finalize design - MANAGE	End July 08
TOT Modules Ready for Delivery	Session Plan, RM etc.	15 <sup>th</sup> Aug 08
5 Day TOT	Testing of TOT Modules	End Aug 08
Final Modules for CB Mgr		3 <sup>rd</sup> Week of Sept 08
Orientation of CB Managers	Testing of CB Mgr. Modules	Between Diwali & Diwali

## Information

**Focus on Process rather than content**

**Identification of**

- Key Stakeholders for TNA
- Focal Persons for each state

Actors / Levels	Govt	NGO	Private Sector / Others
Block			
District			
State / Regional			
National			



## CURRENT STATUS OF CAPACITY BUILDING MEASURES IN KARNATAKA STATE

BY

DR.M.V.MANJUNATHA

ASSOCIATE PROFESSOR OF AGRICULTURAL ENGINEERING  
UNIVERSITY OF AGRICULTURAL SCIENCES,  
DHARWAD (KARNATAKA)

- Karnataka has highest percentage of DLA farming in the country next to Rajasthan in terms of semi arid climate with uneven rainfall prone to recurring droughts.

- 70% of the rural population in Karnataka depends on dry land agriculture for their livelihoods.

Need for watershed development in Karnataka

- Around 82 lakh. ha of cultivable area is dry land and only 24 % of land is irrigated.
- High percentage of drought prone area (79.87 %) in the country compared to other states in India.
- Depleting ground water and high rate of exploitation with an increasing trend, reduced vegetative cover and increase in soil erosion with heavy nutrient loss, reduced ground water recharge due to rapid runoff.

**GOK set up a separate Department "The Watershed Development Department" came into existence an Independent Department on 1.1.2000**

## VARIOUS WATERSHED SCHEMES AND PROJECTS IN KARNATAKA

1. Centrally sponsored schemes
2. Externally aided projects
3. State sector projects
4. District sector watershed development scheme
5. NABARD project
6. NDDDB project

**The components of watershed development are :**

- Soil and land management
- Water management
- Crop management
- Afforestation
- Pasture/fodder development
- Livestock management
- Rural energy management
- Other farm and non-farm activities and
- Development of community skills and resources



#### A. Centrally Sponsored Scheme

1) National Watershed development project for Rainfed Areas (N.W.D.P.R.A.)

1) River Valley Project (RVP)

#### 1. IWDDPRA

- Operation since 1991-92. 9,09,996 hectare area have been treated.
- Operation in 26 districts

#### Monitoring Mechanism:

1. State level Watershed Development Implementation Committee -Headed by Additional Chief Secretary and Development Commissioner, GOK.
2. District level Co-ordination Committee - Headed by Chief Executive Officer of respective Zilla Panchayat.
3. Taluka Level Co-ordination Committee - Headed by Chairman of the Taluka Panchayat.
4. Watershed level - Watershed Committee (Mitra Krishika Mandal / Watersheds Sanghas, Watershed Societies) - Headed by a President, selected by the local people from among themselves.

#### B. River Valley Project (RVP)

- Operation in Tunghabhadra, Nizamsagar and Nagarjunasagar Catchments.
- The scheme was started during 1963-64
- Objective:** Preventing and checking premature siltation of reservoirs and to increase production and productivity of the catchment area.
- Since inception of the project an area of 5.85 lakh Ha. has been developed with an expenditure of 102.269 Crores.

#### 3. Externally Aided Projects:

1. World Bank Assisted Watershed Development Project (SUJALA)
2. British Government Assisted (DFID) KAWAD Programme
3. Swiss Government Assisted Project (ISPWDK)
4. Comprehensive Watershed Development Project, Karnataka (DANIDA AIDED PROJECTS)

#### 3. State Sector Scheme:

State Government has earmarked Rs. 8.42 crores towards establishment cost of the Staff of Watershed Development Department. Under this scheme salaries and other allowances of the employees of Watershed Development Department is met.

#### 4. District Sector Watershed Development Scheme:

1. Drought Prone Area Programme (DPAP)
2. Desert Development Programme (DDP)
3. Western Ghats Development Programme (WGDP)
4. Integrated Wasteland Development Programme (IWDP)
5. Watershed Development Training Centers (Bijapur and Mysore)

The district Sector Schemes under the administrative control of Rural Development and Panchayat Raj Department.

Watershed Development Department is also implementing these schemes under the supervision of Zilla Panchayats in most of the districts.

#### 5. MABARD Watershed Development Project

#### 6. NDDB Assisted Papagni Watershed Development Project

### SUJALA WATERSHED PROJECT - WATERSHED DEVELOPMENT DEPARTMENT

- SUJALA watershed Project period: Sept. 2001 to Sept.2008 ( 7 years)
- Project is in operation in 1270 villages in the five districts of Tumkur, Kolar, Channarayana, Dharwad and Haveri. Totally 4,27 lakh hectares are to be treated under the project.

#### Project components:

1. Participatory watershed development and protection (88.8 %)
2. Farming system intensification (5.6 %)
3. Income generation activities (4.2 %)
4. Institutional strengthening (3.4 %)

#### Methods adopted for awareness creation:

- Individual house visit, informal street/special group meeting, village meeting, gramas sabhaya street shows, public distribution system, village level, pamphlet distribution, basket/banana/vegetables, health camps, baseline data collection, conducting PRA exercises, delineation of micro-watershed with the participation of local people, speech competition and quiz.
- Community based organizations: SHGs, Area groups (AGs) and Sujala Watershed Sanghas (SWS) are the pillars for community participation in the project.
- Strategies adopted to build the capacities of the stakeholders;
- Training, Exposure , Teleconferences, Radio programmes

### Progress status of Capacity building

Sl.No	Different stakeholders trained under S(U)A..A	No. of Participants
1	SHG's (6559)	98,385
2	Area groups (4389)	175,560
3	Executive committee of Sujala sangha (750)	10,210
4	Others including bankers, officers of line department, field NGO staff, Lead NGO staff, etc.	18,943
Total		303,108

Upto Sept.2005

### Organizations and Institutions involved in capacity building programmes

Thematic areas	Organizations and institutions involved	State level	District level	Sub watershed level	Micro watershed level
Technical	1. I.A.R. Bangalore	*	*	*	*
	2. I.A.R. Dharwad	*	*	*	*
	3. Centre for Continuing Technical Education, Karnataka (CCTRE)	*	*	*	*
	4. Karnataka Veterinary, Development, Animal and Fisheries Sciences University	*	*	*	*
	5. KAW Watershed Development Karnataka, Udupi	*	*	*	*
	6. District Watershed Group	*	*	*	*
	7. AA/WAT/As - sub watershed	*	*	*	*
	8. Karnataka State Animal Resource Surveying Agency (KARSARSA)	*	*	*	*
	9. Lihariya NGO - MYSURU	*	*	*	*
	10. Level NGOs	*	*	*	*
Social, Managerial and Financial	1. I.I.M. SOGA	*	*	*	*
	2. I.I.T. Madras	*	*	*	*
	3. I.I.T. Bombay	*	*	*	*
	4. W.D. - I.I.T. IITD staff	*	*	*	*
	5. I.I.T. and I.I.T. CA	*	*	*	*

### Comprehensive Watershed Development project, Karnataka (DANIDA AIDED PROJECTS)

- Danish funded KAWAD project ( I phase) covered an area of about 41000 ha spread over in 14 watersheds in the districts of Dharwad, Belgaum and Utlar Kannada during 1988-1997.
- The II phase was initiated during 1995 comprising of 14 watersheds in Dharwad, Belgaum, Bijapur and Gulbarga . Project period was 7 years.
- **Participatory approach:** Consists of SHGs and Village Development Committee (VDC) for each of the villages with in the watershed comprising farmers of different categories (poor, marginal and resource-rich), women, youth, landless and village leaders, a women's group and a watershed development committee (WDC) with representatives from different VDC's plus the relevant local officials and project staff.
- The WDC have been formed when 2 or more VDCs have been formed.
- **Training:** Capacity building of government staff and training of farmers has given high priority. Training was given to project staff, line department staff involved in project implementation, VDC members, WDC members, farmers and groups involved in IG activities.

**Training: a) Purpose:**

1. To improve the technical and social skills of VDC members, women, BHGs, farmers, youth etc.
2. To make the beneficiaries to take advantage of the project works.

**Method:**

Sharing of experiences by group members, discussion with the use of video slides/ photographs, Success stories, Role playing, case studies, method demonstrations (skill teaching), field visits, farm walks.

**Output:**

1. VDC members training: An introduction to KWOP/WDCP, Subject matter areas, participatory approaches, group meetings and accounting and book keeping
2. Women and BHGs : Income generation activities, skills relating to specific activity
3. Farmers: Improved conservation and production practices (both institutional and village based)

**Organisational Set Up:**

1. Village level management team ( BHGs, VDC, WDC)
2. Watershed level management team ( JAO, AAO PWs and AA)
3. Cluster level management team (Watershed operation group / advisory)
4. District level management team ( AD, RFO, Livestock Inspector, Community organizer)
5. Project level management team ( PD, District Advisor, Assistant PD, Project forest officer, Project Horticulture Officer, Project livestock officer, Project Sociologist, Project training officer)

**INSTITUTIONAL TRAININGS**

- a) Staff training: PRA training for core staff, Project details & PRA techniques, subject matter area, project management with people's participation, training management, refresher courses as per the requirement.
  - b) VDC members training: An introduction to watershed development, subject matter area, participatory approaches, group management and Accounting & book keeping
  - c) Women / SHGs training: Income generation activities, specialized skills relating to IG activities
  - d) Farmer's training: Improved conservation and production practices
- B) Village based training : Conservation practices, Improved production practices.**

**THANK YOU**



## Capacity building in watershed management: CAZRI's initiative



**Dr. R.K. Goyal**

Senior Scientist (Soil & Water Conservation Engg.)

**Central Arid Zone Research Institute  
Jodhpur -342003 (Raj.) India**

### Mandate

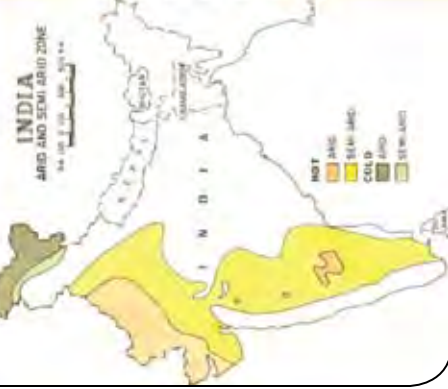
- Integral survey of natural resources and to act as repository of information on desertification and its control
- Evolve technology for desertification control and dissemination through line departments and people's participation
- Basic and applied research on land, water, vegetation and animals for their conservation and efficient utilization in farming systems mode
- Strategies for drought management and socio-economics of drought desertification
- Develop techniques of optimizing energy use in arid agriculture through renewable sources
- Collaboration with national (SAU's and state departments) and international institutions
- Provide scientific leadership/consultancies and training at various levels

## CAZRI – A Historical Background

- 1952: Desert Afforestation Research Station
- 1957: Desert Afforestation and Soil Conservation
- 1959: Central Arid Zone Research Institute



## Distribution of Indian Arid Zone



**Indian Arid Zone  
(38.7 m ha)**

**Hot Arid :** 31.7 m ha

**Rajasthan:** 19.60 m ha

**Gujarat:** 6.22 m ha

**Haryana & Punjab:** 2.75 m ha

**South Peninsula:** 3.43 m ha

**Cold Arid :** 7.0 m ha

**Jammu & Kashmir:** 7.0 m ha



## Natural Resources of Arid Zone



- Time Tested Water Harvesting Structures
- Pasture grasses/legumes
- Rich Mineral Endowments
- Common Property Resources
- Multi Purpose Trees/Shrubs
- Hardy and Productive Animals
- Ample Solar and Wind Energy

## Environmental Constraints



- Low and Erratic Rainfall
- Intense Radiation
- High Wind Velocity
- Problematic Soils & Water
- Sandy Soils with Poor Fertility
- Biotic Pressure
- Overgrazing
- Over-exploitation of Land and Water Resources
- Social ills & unawareness

1



- 105 Scientists of 33 disciplines
- Library - 165 periodicals/ 19600 books
- ENVIS
- ARIS
- ATIC
- International Hostel
- Training Hostel
- KWK
- Farmers Hostel



### Watershed coverage in Rajasthan

S.N.	Name of River	River Code	Catchments	Catchment area (Lakh ha.)	No. of Watersheds
1	Kanthal	01	1	2.6	3
2	Dohari	02	1	1.4	2
3	Sahibi & Sothi	03	1	4.5	4
4	Bar	04	1	4.5	4
5	Bandha River	05	1	6.9	5
6	Luni	06	1	34.3	14
7	Banas	07	1	46.6	12
8	Banganga	08	1	14.4	10
9	Chambal	09	1	29.1	19
10	Sutut	10	1	1.9	3
11	Banas West	11	1	3.0	5
12	Sabarnathi (Wakal)	12	1	4.3	8
13	Mahi	13	1	16.0	14
	Total	-	13	169.5	103

Source: Measured Atlas of Rajasthan, State Remote Sensing Application Centre, Jaipur based on IRS LISS-1 FCC data on 1:250,000 scale

Watershed in Western Rajasthan = 1036  
Developed = 127 (808 Km<sup>2</sup>)

### Watershed Development | CAZRI Experience

- Jhauwar Model Watershed Project (1987- 92)
- Sar watershed (1990-1995)
- On-Farm Research for arrest of desertification DDP TOT Program (1995-97)
- Demonstration of Proven Technology of Watershed Development and Water Harvesting in Kutma watershed (Bhuj) Gujarat (1999-2004)
- Hydrology of Small watersheds – Madpuria and Pundlu watersheds (1998-2005)
- Watershed Management Technology in Hot Arid Region- Baorali-Bambore Watershed (2000-2004)
- Land use planning for management of agricultural resources in Salori Watershed in Jodhpur district

### Watershed Management for Sustainable Development in Arid Region



### Capacity building initiative of CAZRI in Watershed Management

#### Division of Agricultural Economics, Extension & Training

- ✓ Conduct research on impact analysis and improve extension system
- ✓ Identify ITK and fine tuning for arid farming system
- ✓ Identifying gaps and modification considering new trends
- ✓ Conduct training of state officials, farmers and international scientists
- ✓ Field level demonstration on improved technology

#### Major areas for training in watershed

- Efficient management of rainfall
- Integrated management of farming system based on watershed / Index catchment
- Soil and water conservation
- Conservation of plant and fauna
- Conservation of forest and grazing lands
- Livestock improvement and management
- Income generating programs
- Formation of Self Help Groups (SHG) of farm women to improve hygiene-sanitation/women and child health
- Sensitization of training groups

#### Preparatory of Training Modules

- Pre-training meeting with group of trainee (Officers/farmers)
- Identifying thrust areas (site specific problems) in consultation with groups
- Formation of training module in consultation with experts
- Emphasis is on practical aspects

#### Methodology of Training

##### A. Gain in Knowledge

- Lecture
- Extension Talks
- Small group technique
- Video/CD Shows
- Question/Answer Discussions

##### B. To acquire skill

- Practical
- Presentation
- Demonstration
- Workshop
- Case study
- Role play
- Skill Teaching
- Group discussion

##### C. To change attitude

- Study Tour
- Role plays
- Campaigns
- Exhibitions
- Motivation/Sensitization

##### D. Solving Problems

- Group discussion
- Brain Storming
- Case Studies
- Personal interaction



### Major Activities

#### ✓ Arable lands

- Contour vegetative hedges
  - Agro-forestry
  - Arid horticulture
  - Composite pits
  - In-situ water conservation
  - Cropping techniques
- #### ✓ Non Arable land
- Silvi-pasture & livestock management
  - Afforestation and preservation of grasslands
  - Bio-fuel and medicinal plantation

#### C. Income generating activities

- Nursery raising
- Small scale enterprises for lean period
- Self help group of women and BPL
- Linkage with financial institution and marketing network
- Post harvest management
- Vermi-compost/composting
- Animal feed block manufacturing
- Dairy oriented activities

Training courses for extension personnel

Year	Training courses	Participants
1981 - 1985	45	623
1986 - 1995	65	1221
1996 - 2003	28	375
<b>Total</b>	<b>138</b>	<b>2219</b>

Other extension activities

Year	Field day	No. of farmers	Kisan Mela	No. of farmers	Radio talk
1981-1985	14	1200	5	3920	18
1985-1995	27	4730	8	4445	47
1996-2003	3	559	2	1227	18
<b>Total</b>	<b>44</b>	<b>6489</b>	<b>15</b>	<b>9592</b>	<b>81</b>

- Dryland farming
- Integrated watershed management
- Fodder production
- Arid horticulture
- Jobbe cultivation
- Agro-forestry
- Major Soils of Arid Zone
- Management and planning of AV aids
- Participatory Rural Appraisal
- Production Technology for coarse cereals
- Communication strategy of transfer of Technology
- Agricultural Droughts: Role of crop growth modeling
- Drip Irrigation
- Special training on rodent control for Railway personnel
- Farming system approach for arid area
- Training on Harem and Holistic sustainable development
- Pasture development and fodder production in arid and semi-arid areas.
- Food preservation for Nutritional Security and Income Generation
- Dairy Management
- Entrepreneurship development based on Agro-enterprises

### IFRD Sponsoring Agencies

- Directorate of Extension, New Delhi
- Dept. of Rural Development, New Delhi
- Directorate of Agriculture, Rajasthan
- National Watershed Development Board, New Delhi
- Ministry of Agriculture, New Delhi
- Bank of India
- Department of Horticulture
- Department of Agriculture, Rajasthan
- DRDA, Jodhpur and Pal
- Directorate of Millets, Gov. of India
- Department of Soil Conservation and Watershed Development, GOR
- DST
- ICAR
- North-western Railway, Jodhpur
- MABARD, Govt. of India, New Delhi
- Directorate of Agriculture Extension, Govt. of Uttaranchal
- ATMA/NGO's
- UNESCO/FAO

### Other means of IFRD/help of Stake holders

- ✓ Kisan call center – 24 hrs.
- ✓ ATIC
- ✓ KVK
- ✓ E- Agriculture
- ✓ Village Service Centre
  - Video Conferencing
  - Problem discussion and solution

### Agricultural Technology Information Center (ATIC)



### Krishi Vigyan Kendra (KVK)

- Collaborate with the subject matter specialists of the SAU/ICAR/State for "on farm testing" and refining of technologies
- Organize training to update the extension personnel for emerging advances in agricultural research on regular basis
- Organize long-term vocational training courses in agriculture and allied vocations for the rural youths with emphasis on "learning by doing" for generating self-employment through institutional financing
- Organize front-line demonstration in various crops to generate production data and feedback information

### Major activities undertaken

- Organized vocational training programs in agronomy, horticulture, plant protection, agro-forestry, home science and animal husbandry
- Organized training programs for the in-service extension personnel of the line departments & NGOs
- Conducted Front Line Demonstration on oil seed & pulses
- Conducted field demonstrations (others than FLD on oilseed & pulses) on crop production, horticulture, agro-forestry, plant protection, home science and livestock production aspects
- Conducted On Farm Testing (OFT) on farmer's field in the disciplines of Plant protection, agro-forestry, and animal husbandry
- Management of demonstration units based on crop production, horticulture, agro-forestry, sheep-pasture & dairy ing

Training courses for extension workers (2000-2004)

Discipline	No. Courses	No. of Participant
Animal Husbandry	3	91
Agro-forestry	2	38
Home Science	5	275
Agricultural Extension	1	31
<b>Total</b>	<b>11</b>	<b>425</b>

Training courses for farmers/ farm woman/rural youths (2000-2004)

Discipline	No. Courses	No. of Participant
Crop Production	113	2606
Horticulture	67	1345
Animal Husbandry	53	823
Agro-forestry	13	181
Plant Protection	78	1096
Home Science	56	1346
Agricultural Extension	35	1366
<b>Total</b>	<b>416</b>	<b>8963</b>

Front-Line Demonstrations (2000-2004)

Crop	Variety	Area (ha)	No. of demonstrations
Peanut/pebet	HHB-67	79	140
	ML-160		
Cluster bean	CZF-9802	25	50
	RGC-406		
	RGC-1003		
Mung bean	Maru Gaur	28	40
	RMO-62		
	POM-11		
	POM-54		
Mooh bean	RMO-40	40	80
	RMO-257		
	CZM-1		
	CZM-3		
Sesamee	RT-46	35	70
	RT-127		
Castor	GCH-4	28	40
	GCH-5		
	RHC-1		
Mustard	Bio-902	265	110
<b>Total</b>			<b>530</b>

Extension activities (2000-2004)

S.N.	Activity	No.	S.M.	Activity	No.
1	Field days	08	11	Nocturnal control campaign	07
2	Agricultural Exhibitions	115	12	Sale grain storage campaign	02
3	Radio Talk	40	13	Farmers visit to KVK	509
4	TV Shows	05	14	International Women's day	01
5	Parapetals	55	15	Popular article	30
6	Slides	45	16	Extension leaflets	39
7	Farmers Science Club	14	17	News paper coverage	88
8	Mobile Markets organized	26	18	Kisan Dinak	04
9	Ex. meetings organized	26	19	Scientist visit to farmers fields	156
10	Women day in Agriculture	03	20	Group discussion meeting	38



### Linkages with Govt. Organizations

- Arid Forest Research Institute, Jodhpur
- Defence Laboratory, Jodhpur
- Desert Medicine Research Institute, Jodhpur
- State Ground water Departments
- Public Health and Engineering Department
- Watershed and Soil Conservation Department
- Irrigation Department
- Animal Husbandry Department
- State Agricultural Universities

### CAZRI's Linkages with local NGO's

- Jai Bhagwati Foundation- Jodhpur
- Gramin Vikas Vignay Samiti – Jodhpur
- Pooava Sahani Bahuboyabhi Sahakar Sansthan – Jodhpur
- Action for Food Production (AFRO)
- Thar Voluntary Health Society – Jodhpur
- Jalgrahan Sansthan- Osian (Jodhpur)
- UNIKAT – Jodhpur
- School of Desert Development – Jodhpur
- DC – Agdal (Jodhpur)

### SWOT Analysis – Capacity Building

Issue	Strength	Weakness	Opportunity	Threat
Human (State Builders)	Strong social fabric low population, arid and mountainous	Dependy population, direct, high population growth, illiteracy, poverty, needs capacity building, poor physical health, poor medical facilities, poor nutrition and health care, inadequate means of livelihood	Flurry of labor and human resources, available in nearby regions, scope for tourism and agro industries	Migration to urban areas, high population growth, illiteracy, poor health care, poor nutrition, marginal lands for agriculture
Organizations (CAZRI)	Well equipped multidisciplinary staff, state of the art, DRR, research applications and R&D.	Weak communication & liaison with state institutions, low population, resource generation	Multi-lateral interdisciplinary programs, scope of projects, sharing of resources and mutual working	Overlapping of R & D efforts

### Some issues for capacity building

HRD requirement of Arid region is different than Semi arid or humid regions

In arid region instead of hydrologically delineated watershed, Index catchment approach should be used

Beside capacity building in watershed management, income generating activities is also important for arid region

Focus on Gender based capacity building

Development of Khadins, Nadis, Tanka, for non watershed areas of Western Rajasthan

In area receiving rainfall < 300 mm livestock husbandry should be the main focus for capacity building

### NGOs in Rajasthan

- The NGO sector in Rajasthan has today emerged as an effective third sector after the government and the private sector. This has been the result of some local and some professional initiatives taken by institutions and individuals in early eighties.
- The Vidya Bhawan Society in Udaipur, the Social Work Research Center in Ajmer and Umaid in Sikarim emerged as three seeds centers around which the NGO sector in Rajasthan developed.
- The Government of Rajasthan initiatives for working with NGOs
  - Setting up of ARAVALI (Association for Rural Advancement) through Voluntary Action Local Involvement)
  - Setting up of an NGO Cell and State Level Steering Committee
  - Selection Mechanisms of NGO for Projects

### Government - NGO Partnership

**Watershed Development**  
Voluntary agencies are being involved for monitoring, community organization, capacity building, gender sensitisation, training etc.

#### Women and Child Development

Four projects of ICDS Program are being implemented by NGOs (Lupin, Urmil, Bhoruka and Madhusmitti). Training of Aanganwadi workers, Self Help Groups (SHGs) - about 48000 groups have been formed.

#### Irrigation

Water re-structuring projects - about 500 Water Users Associations have been formed to monitor the implementation of project work.

#### Forest

As facilitator in preparation of village level micro plan through Participatory Rural Appraisal (PRA) formation of Village Forest Protection & Management Committees (VFPMCs) - 3446 VFPMCs have been constituted. Besides these, 100 Eco-Development Committees around protected area networks have been formed.

### Technology Demonstration



### On Campus Training





Off Campus Training



Thanks






**GTZ-GoI-ICRISAT-MANAGE Project for Consortium on capacity building for watershed management**

**Rapporteur's report for Technical Session III**  
**Chair: PV Veeraraju**



**Capacity building initiatives in Karnataka – MV Manjunatha**



- Highlighted relevance of WSM in Karnataka
- Insights on various watershed programs being implemented in the state
- CB initiatives by Directorate Extension Education under various WSM programs like Sujala, CIDA, world bank project on renovation of water tanks
- Emphasized UAS has moved from technical training into CB having social agenda and IGA
- Impact of training for which methodology being used



**Capacity building Initiatives in Karnataka – MV Manjunatha**



- On the selection of trainers for CB, based on the requirement by the sponsoring agency



**Capacity building initiatives in CAZRI – RK Goyal**



- Profile on CAZRI and extend of arid zones in the country
- Natural resources and constraints in arid zone
- Department of Agri. Economics, Extension and Training responsible for CB, infrastructure available including demonstration on various technologies
- Key areas for CB, sponsoring agency for training and agencies having link with CAZRI for training
- KISSAN call centre, KVK, ATIC, village service centre e agri., frontline demonstration, kissan days, kissan talks





### Capacity building initiatives in CAZRI – RK Goyal



- Having linkage with other GO and NGOs for training, consultancy and technical backstopping
- SWOT analysis for CB where main points emerged are poor linkage, low potential for resources and overlapping R&D
- Presented important thematic area for CB in arid zones like IGA, gender based CB, livestock mgt, training on ITK water harvesting structures (*khadin, nadis, tanka*) for non watershed areas
- 105 scientists and discussion on composition of consortium, linkage with other partners



### Capacity building initiatives in MPUAT – Singh



- Targeting SAT and having watershed training centre
- Current status of CB measures in WSM, not utilizing money allotted under CB, lack of details on modules, duration and lack of quality staff in off campus trainings
- Non convergence of organizations for CB and lack of functional linkage with GO depts and res. institutes
- Strengthening support facilitation organization and MTO at district level
- Social auditing in watershed programs and Need for establishing resource centres



# Thanks



# Criteria for Identifying Consortium Partners

Group II

## Content

- Need based expertise; as per area, its agroecology, Non farm activities, income generation activity promotion, & other thematic needs
- Clients' / Project's requirements should be fulfilled
- NGOs with field presence and experience
- Soft skill imparting institutions

## Types of Members

- Individuals
- Institutions:
  - Research and academic
  - NGOs
  - Line Depts. & their resource centres
  - Federations of Community Based Organisations (CBOs)
- Private sector organisations

## Member Characteristics

- Willingness to give time
- Experience of providing resource support
- Readiness & willingness to work with others

## Other important membership issues discussed

- Registered organisations???
- Provision for accountability
- Size of membership
- Accepted process of member screening (e.g., field verification)
- Complete package of support through Consortium; hence, diversity to be encouraged
- Keeping space for the UNCONVENTIONAL

## Vision for the Consortium

- The membership should be such that the Consortium is able to:
- Cater to the needs of larger clients (e.g., Central and State Govts. and projects (like the IGWDP)
  - Offer a bouquet of services through a single window

## Criteria for Identifying Nodal Organisation

Group II

## Strengths & Characteristics

- Ability to empathise with & accommodate divergent views
- Ability to lead & take all partners together
- Fosters a culture of unbiased action / decision making / etc.
- Be a learning organisation
- Displays openness
- Willing to spare time & resources
- Willing to work with other members

## Process of Nodal Agency Selection

- Selection process to be facilitated by the National Consortium
- Processes like a State level multi-stakeholder consultation, can be adopted

## Need further thought & discussion...

- Modalities of member & nodal organisation selection
- Enabling mechanisms for the same

THANKS



## Technical Session II Rapporteur's Report

Chair : K.Thirupathaiah

Rapporteur : Piara Singh

Total presentations : 3

## Capacity Building on Participatory Watershed Development in Uttarakhand By Mr. Debashish Sen

- > Described people's Science Institute (PSI)-mission and approach on capacity building
  - Demand driven
  - Emphasis on women of weaker sections
- > Disciplines covered
  - NRM
  - Disaster mitigation and response
  - Development studies
  - Environmental quality monitoring

- > Described various units of the Center for Participatory Watershed Development
  - Training Unit
  - Development Support Unit
  - Communication Unit
  - Research Unit
- > Described Training courses offered, training approach, training design for target groups, course contents and modules, orientation courses for various types of clients, training material published
- > Described various pilot/innovative projects developed support provided, institutions that availed capacity building services
- > Described key points for capacity building in Uttarakhand

### Questions/comments

- > What are the mechanisms of sharing training material?
- Whether training material be online or offline?
- Impact assessment of CB-real test is from the field?
- Whether capacity building was extended to state departments- restricted to the programs of organization?
- How attitudinal changes are measured?- followers become more leaders or proactive
- Any training on environmental aspects?-quality of forests and water
- Why organic farming not picking up/ certification issues –PSI mainly focused on technologies
- Operational guidelines are needed at pilot scale testing
- Subject matter specialities more useful than approaching an institution for capacity building

## Capacity Building in Watershed Management in Rajasthan By R.K.Pal

- Described watershed development activities in state
- Participation of research institutions/organizations in capacity building not at desired level
- Inadequate peoples' participation to the designed capacity of watersheds
- Additional capacity development needs to be specific to the ecologies of Rajasthan

## Capacity Building initiation in Sujala- By Sandeep Dave

- Defined what is capacity building
- Narrated the importance of capacity building
  - Shared vision, self confidence, self esteem, attitudinal changes and ensure ownership
- Described the training cycle
- Objectives of capacity building in Sujala
  - To ensure ownership
  - To ensure trust and transparency
  - To ensure equity and social inclusiveness

- Described framework, major types and themes of capacity building in Sujala
- Various stakeholders trained, training modules and publicity materials
  - Importance of pictures Vs text in publicity material
- Transparency and accountability in Sujala
- Impacts and spillovers of capacity building

### ➤ Questions/comments

- What were the mechanisms/processes for forming and sustaining consortium
  - Partner selection based on core competency
  - Participation of training modules along with Sujala
- What capacity building needs were identified for institutions and organizations?
  - Each NGO has some need for capacity building
- How the democratic processes are handled in consortium
  - Roles of partners identified democratically
  - Final decisions made by person accountable
- Any value addition to capacity building?
  - Ours and others learnings added value
- What are the learnings from capacity building done independently
  - It should lead to the positive impact

### Chairman's Remarks

- > We need not be uniform in approach in terms of taking lead in capacity building. However, it is important to work together
- > GTZ initiative will influence other donors to come forward for capacity building in watershed management

# Thank You



## GTZ-GOI-ICRISAT -Manage Project Planning Meeting

### Rapporteurs' Report on Session 3

**Chair: Mr. Sandeep Dave**  
Commissioner  
Watershed Development Dept  
Sujala Watershed Project  
Bangalore

## Learnings from consortium approach

**Dr.Wani and Mrs. Sreedevi**

- ICRISAT watershed experience- Lessons learnt
- Reasons for not working the successful models are: Missing equity, lack of community participation, compartmental approach and lack of capacity building
- ICRISAT was a leader to adopt farming systems but there was a shift from technology package to integrated watershed management
- Watershed is an entry point for IGRRM
- Meta analysis says about 2/3 watersheds are not above average and reasons being lack of technology back stopping and capacity building
- CA : Knowledge based entry point activity is more effective for community participation and emphasized on convergence of activities.
- Time line for consortium models
- Flow of consortium from ICRISAT-AP-Different States-Avian Countries
- Emerging policy guidelines

## Learnings from consortium approach

**Dr. Wani and Mrs Sreedevi**

- Discussion
- 1) Kind of Knowledge based entry point activities (Dr. PV,Veerajulu)
  - 2) Post management of watershed (Dr.Manjunatha, UAS)
  - 3) What is the consortium size and predominant factors for this model (Mr.Ajit Phadnis)
  - 4) Analysis for any failures (Mr. Debashish Sen)

## Consortium based approach for capacity building in watersheds by Mr K. Tirupathiah, Govt of A.P

- Strategy and approach of consortium in Andhra Pradesh
- Consortium for capacity building
- APARD is a nodal agency
- 27 resource organizations in consortium in AP
- 2001-2004 (Phase I)-5 organizations and 2004 onwards (Phase II)-state level consortium
- Need for consortium and support services needed
- Achievements of coordination
- 25 institutions totally working in consortia
- Construction activities to livelihoods and finally future opportunities
- 1) Problems faced while scaling up of APRLP consortium (Mr Ravindra Singh)
- 2) Demand for Consortium: coming from top to down? (Mrs TK.Sreedevi)
- 3) Whether all the services procured thru consortium ? (Mr Ajit Phadnis)
- 4) How you select best services and from whom (Mr.Michael Glueck)



## Experiences and learnings from the consortium approach for capacity building in the areas of watershed management in Andhra Pradesh: Mr MV.Ramachandrudu (WASSAN)

- Funds allotted for capacity building in the project - itself good point
- Examples of consortia in AP versus other states
- Evolution and initiatives
- 70 livelihood resource centres established
- Contributing factors (Role of donors and project authorities)
- Concerns of upscaling
- Good quality training is important
- Experiences of facilitation
- Outside facilitation needs to be there

- 1) Consortium is donor requirement ?
- 2) What for consortium is formed (to deliver something ?) (Dr.SP.Wani)

## Frame work for designing modules for ToT and CB managers: Dr.VK.Reddy (MANAGE)

- To carry out the experiences from various programmes such as APRLP
- Objectives of designing modules for ToT and CB
- Steps to be taken up in ToT and CB
- Competency and gap analysis
- Methodology of study (Primary and secondary)
- Analysis of existing approaches and strategies
- Training materials and manuals
- Post training evaluation

- 1) Earlier experiences of MANAGE like Manchal have not been reflected (Mrs TK.Sreedevi)
- 2) Ability and skills about training managers (Mr.Ajit Phadnis)
- 3) What consortium members requirement: lacking (Dr.S.P.Wani)
- 4) Presentation is not convincing (Mr Sandeep Dave)



## Services

1. Training
2. Demonstrations
3. Identifying Resource persons
4. Identifying Resource agencies
5. Assessment of needs
6. Facilitating role
7. Secondary + primary documentation
8. Share material + information
9. Organise exposive visits

## Services

10. Quality guidelines preparation
11. Quality monitoring
12. Networking
13. Handholding support
14. Impact assessment
15. Process documentation
16. Recognition of the consortium
17. Policy advocacy
18. Preparation of operational guidelines and training material

## Services

19. Awareness creation / publicity
20. Facilitate linkages

## Added value

1. Cost effectiveness
2. Single window
3. Platform for knowledge management
4. Stronger voice
5. Synergies
6. Credibility of information
7. Conflict resolution between service provider and also users
8. Transparency
9. Up scaling
10. Quality assurance

## **Training**

1. **Social and process aspects**
2. **Livestock**
3. **Productivity enhancement**
4. **Training of trainers**
5. **TNA**
6. **Monitoring and evaluation**
7. **Sensitization of stake holders**
8. **Income generation activities**
9. **Finance management (farmers)**
10. **Equity and gender issue**

## **CRITERIA FOR CONSORTIUM MEMBER**

1. State based organization with proven track record in at least in one of the service areas
2. Willingness to share the information with the partners
3. Voluntary membership
4. Organization should nominate/ contact one person responsible for this work
5. MOU with the partners and with the state department (modality)
6. Distinguish between resource person and a progressive farmer
7. Expertise / capability in the relevant area

## **CRITERIA FOR SELECTION OF NODAL AGENCY**

1. Should have mandate to manage the public funds
2. Willing to change
3. Expertise and experience in capacity building
4. Willing to work with other members
5. Ability and experience to lead & take all partners together
6. Acceptance / trust by the state department
7. Ability to emphasise with & accommodate divergent views
8. Fosters a culture of unbiased action / decision making / etc.
9. Willing to spare time & resources

## **National consortium**

1. **Time frame**
2. **Training material**
3. **Sharing experiences across the state**
4. **Models for training to all the consortium members**
5. **Play a role of identifying honest broker in the area**
6. **Holistic approach**
7. **Monitoring and evaluation**



## Process of Nodal Agency Selection

- Selection process to be facilitated by the National Consortium
- Processes like a State level multi-stakeholder consultation, can be adopted

## Need further thought & discussion...

- Modalities of member & nodal organisation selection
- Enabling mechanisms for the same

## Modalities for consortium

1. Commitment from the state government
2. Selection of potential nodal agency through transparency
3. Group of experts for state committee
4. State holders workshop
5. Get the MOUs from the partners and the state govt. with clear role of the partners (role of Govt., nodal agency and consortium members)

## Organisational set-up

State nodal agency should finalise the organisational set up for the state.







# About ICRISAT



ICRISAT  
Science with a human face

The International Crops Research Institute for the Semi-Arid Tropics (ICRISAT) is a non-profit, non-political organization that does innovative agricultural research and capacity building for sustainable development with a wide array of partners across the globe. ICRISAT's mission is to help empower 600 million poor people to overcome hunger, poverty and a degraded environment in the dry tropics through better agriculture. ICRISAT belongs to the Alliance of Centers of the Consultative Group on International Agricultural Research (CGIAR).

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