CHAPTER - XIII

IMPLEMENTATION, MONITORING AND EVALUATION OF WATER HARVESTING STRUCTURES-MODELATIES

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13.0 GENERAL

The post-implementation monitoring and evaluation of water harvesting and recharging structures lies in determining the efficiency of water harvesting systems and the benefits accrued to community in the areas as a result of such harvesting and recharge of works and programmes. The overall monitoring and evaluation criteria is listed below: -

1. Monitoring the rise in ground water levels caused by changes in surface and ground water storages.
2. Area benefited and population served by additional availability of surface and ground water through harvesting and water augmentation measures.
3. Monitoring the changes / improvements in water quality caused by recharged water.
4. Periodic operation and maintenance of water harvesting and recharging structures such as desilting and safeguarding of catchment areas against possible pollution and degradation activities.
5. Making people aware of the benefits and outcome of implementation measures and efforts made in sectoral reform programme leading to water conservation and augmentation measures.
6. Monitoring and evaluation system shall be both a inbuilt system of schemes execution as well as concurrent system through independent consultants and or agencies with long experience in implementing Rainwater Harvesting and Ground water recharging works.
7. Harvesting Technology chosen should be appropriate for local area and culture and thoroughly assessed both before and after implementation and corrections made where necessary with peoples involvement.
8. Implementation should best be done by Watershed Conservation Approach through specially set up various levels of watershed committee's for all levels of water management including initial planning and design of harvesting and recharging structures, as well as construction, supervision, decision making, operation and maintenance, monitoring and evaluation of systems designed and constructed.

Implementation shall therefore be,

1. Build upon participatory process within each Zila Parishad / Panchayat to engage civil society, government, NGO's and user groups.
2. The CGWB, CWC, SGWB's and IIT's be invited to contribute advice on scientific and technical issues including issue of designs of water harvesting and recharging systems, while it may also be required to register experienced NGO's and VOS groups to contribute at local levels in system constructions. The two process could work parallel and in tendom.
3. GPs under RRI System can be entrusted with implementation work with technical support of independent experts whose roaster will be available with MORD.

4. It would be desirable to establish a National Network consisting of Organisation, Institutions involved in execution, monitoring, impact assessment of water harvesting and Recharging System. The interaction with academic institutions and NGO's can be initiated and rationalised on area specific needs. The NDW Mission may be the focal institution for coordinating national and regional level networks. A working group for developing designs/ standards needs to be finalized.

   The above over a time frame would promote a fully decentralised implementation mechanism at Block & Panchayat level once the training and experience is fully gained.

13.1 COMMUNITY / PRI / NGO BASED IMPLEMENTATION STRATEGY

Major portion of development in groundwater is through private initiative with assistance from financial institutions. The water harvesting and recharging of ground water cannot be taken up by individuals except where it happens to be a roof top water harvesting work of a small roof catchments. The water harvesting and artificial recharging of groundwater would require group action by committees, societies, farmers with financial assistance from Govt. and Financial institutions.

Whereas the harvesting and recharging work may be executed and implemented by local committee / Gram panchayat in cooperation with experienced NGO's / Consultants, the technical inputs is to be provided by CGWB / SGWB / CWC/IIT's.

Broad areas of activities of CGWB/CWC for example in promoting groundwater conservation and augmentation technologies through recharging should be: -

1. Preparation of detailed National Perspective Plan and its periodic revision.
2. Preparation of detailed Regional Perspective Plans and Master Plans to assist the State agencies including periodic revision of such plans.
3. Preparation of National Guidelines/areawise problems specific guidelines and Manuals for use by State Govt. / NGO's etc.
4. Bringing out Annual Review of efforts on ground water recharging and water harvesting through success stories.

The strategy for participatory implementation and monitoring, by and large, would have following components: -

1. Generation of mass awareness about water conservation for augmentation through NGOs VOS.
2. formulation of women groups/Self Help Groups, micro watershed management committees etc.
3. imparting of training through central/state ground water agencies and rural/agriculture universities/water technology centres/IIT's
4. preparation of specific area modules for training in specific different languages for distribution to group & individuals
5. strengthening of Panchayat Raj institution in water harvesting & conservation measures