

Terms of Reference (ToR) for Comprehensive Impact Assessment of Watershed Projects sanctioned during 2005 to 2008

1. Background:

Over the past several decades, the challenges of arid region cultivation is effectively managed through Watershed Programmes. These programmes are focused mainly on soil & water conservation activities with a mix of technical innovations with top down as well as participatory approaches. These programmes have allowed for holistic approach with policy adoptions over these years, bringing in new methodologies, with greater community participation and social inclusiveness.

During these decades the watershed programmes were mainly implemented as special area development programmes viz. Desert Development Programmes (DDP), Drought Prone Area Programme (DPAP) and Integrated Watershed Development Programme (IWDP) across the country, as various approaches towards the common goal of Rainfed area development.

An evaluation of projects was carried out as per the suggestion of Parliamentary Standing Committee for Rural Development. The period of coverage was with respect to Watershed Programmes sanctioned during April 1998 to March 2002. In this study the DoLR has carried out assessments of impact of the projects by involving NIRD Hyderabad and other reputed institutions. An earlier study assessing impact of project sanctioned during April 1995 to March 1998 was commissioned by the MoRD in March 2001, associating several institutions across the country. These studies have helped in understanding the contribution of programme to the development of natural resources as well as socio-economic impact of the programme area.

Continuing with the Impact assessments studies carried out earlier, DoLR, propose to carry forward the process to its logical end. Accordingly it is proposed to study the impact of last batch of pre-2009 (pre-IWMP) projects implemented across the country. There are 7417 Projects sanctioned during this period. The programme wise break up is DDP 4484, DPAP 2516 & IWDP 417. It is proposed to study the impact of these projects at the national level with following specific objectives.

2. Objectives:

- i) To record the changes observed in **natural resources** in the project area. This include change in Land use & Land cover, Bio-mass, reclamation of waste-land, change in irrigated areas, change in ground water & surface water profiles and change in soil profiles (quality & reduction in run-off).
- ii) To assess the **change in agriculture sector** i.e. change in cropping pattern, area expansion, production, productivity of major crops, cropping intensity and diversity.
- iii) To assess the **change in economy** of the watershed community—i.e. change in Income, Employment, Skill enhancement if any & Expenditure Patterns.
- iv) To assess the **level of people's participation** in the project and its implications.
- v) To assess the **level & pattern of fund utilization** by states and explore reasons for huge unspent balances or low spending along with suggestions for improvement.
- vi) To assess the extent of development & level of **impact on common property resources development** and the system of sharing of usufructs there-off.
- vii) To assess the **post project maintenance of assets & institutions** generated under the project and suggest policy option for their sustenance.
- viii) To assess the **overall impact of the project** on the beneficiaries including the spillover effects (i.e. externalities & social impacts).
- ix) Provide an **overall national level summary** of findings and document the best practices observed. Indicate the lessons learnt with policy suggestions for future improvement.

3. Methodology :

(a) Sample size & area coverage :

- i) Impact study desired by the Ministry of Rural Development will be confined to the watershed projects implemented under the support of the DoLR funds.
- ii) The study will cover watersheds in all the 29 states and 20 % of the projects will be selected in proportionate to the sanctioned ones between 1stApril 2005 to 31stMarch 2008.
- iii) State wise sampling will be in proportion to the number of projects (DDP, DPAP, IWDP) sanctioned under each scheme.

- iv) The study will cover 20% of households from the sample villages.
- v) No less than 90 households will be covered from each of sub-watersheds/micro watersheds for statistical analysis purposes.
- vi) From each sub-watershed/micro three villages representing ridge, Middle and Valley portion will be selected for household surveys. From each village at least 30 households would be covered.
- vii) In addition to the above samples about 50% of samples households to be considered from outside the watersheds area, with similar topography & socio-economic features.
- viii) A comparative analysis of with & without project scenario (i.e. 45 households from untreated similar area).

(b) The analytical framework:

The study would follow the following analytical frame work:-

- i) Natural resources analysis: – Covering Land use, Land cover, Bio-mass, Hydrological & Soil profiles.
- ii) Agriculture sector analysis: - Area Production & productivity analysis, analysis of allied sectors like live stocks, horticulture etc.
- iii) Economic Analysis-Including Cost Benefit Ratio Analysis and Internal Rate of Return (IRR) Analysis. (Covering Income, Employment, Debt & Migration Analysis).
- iv) Institutional Analysis – Community Based Organizations (CBOs) & Project Implementation Agencies (PIAs), Non-Government Organizations (NGOs), Community at Large, other stakeholder if any.
- v) Systemic & Financial flow Analysis: – Administrative arrangement system analysis of fund flow analysis.
- vi) Community Involvement analysis: – How far the project is community driven than merely community centered.
- vii) Gender sensitivity and equity analysis: - i.e. Women Involvement in Planning and Implementation of the project & Distribution of investment returns by class, caste & gender.
- viii) Over all Analysis- A conclusive overall impact analysis of all the above sectors. Interlinking the Watershed Community & Natural Environment.

Ideally the analysis to be carried out in comparison with related baseline values (i.e. before the project status) collected during the initiation of project. In case of non-availability of such data, the analysis should be made in comparison with related normal values of the region. However in case of natural resource analysis i.e. for land use, land cover and bio-mass changes use of Remote Sensing Technology would be adopted for a pre & post project situational analysis. The analysis of natural resources, agricultural & allied sectors, and economic analysis should include both before and after and with & without, comparative analysis.

(c) Chapter Scheme of Contents:

The final report should contain the following:-

- i) Executive summary
- ii) Introduction, detailing the background of scheme & methodology of study, sample size & analytical frame work.
- iii) Impact on Natural Resources
- iv) Impact on Agriculture and Allied Sectors.
- v) Impact on Economic Aspects
- vi) Impact on Institutional Systems
- vii) Impact on the Society especially with Gender & Equity Analysis.
- viii) Over-all Impact- A summary of analysis.
- ix) Best practices, Limitation if any & lessons learnt with suggestions for future alternative policy linkages.

4. Qualifications for empanelment of Evaluating Agency:-

The requisite qualifications for empanelment of the Evaluating Agencies as circulated by this Department to SLNAs (in addition to the provisions in ToR) would be as under:-

- a. The names of leading and reputed organizations (including NGOs) with required infrastructure, expertise and experience should only be included.
- b. Project implementing Agencies (PIA) should not be empaneled for the State in which it is working as PIA.
- c. As per the common guidelines, the panel is to include only institutions and agencies- not individuals.