



# **GUIDELINES FOR CANAL LINING & SYSTEM REHABILITATION PROGRAMME (CLSRP)**

GOVERNMENT OF ODISHA  
DEPARTMENT OF WATER RESOURCES

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## **Introduction:**

The state has made a considerable progress in development of surface water resources. The benefits of flow irrigation are evident. However, a good number of irrigation projects (major, medium and minor) in the state are quite old and have been operating below their potential due to various reasons including lack of maintenance of the canal systems. The main canals and distribution system are not capable of carrying the designed capacity. Seepages in canals are observed near the structures, high embankments and in areas passing through permeable soils. This has resulted in the problem of unreliability in the availability of irrigation water at farm level causing low efficiency of water usage and low productivity. Farmers in the tail end areas of the project are the worst sufferers. Sometimes farmers of high reaches damage the earthen canal embankment and draw excess water. To alleviate these deficiencies in the system above the outlet and for efficient management of water for irrigation, a new scheme namely "Canal Lining & System Rehabilitation Programme (CLSRP)" is being proposed under State Plan from the financial year 2013-14.

## **Objective:**

1. To improve the performance of an irrigation system and to increase the water use efficiency of canals.
2. To enhance water availability at farm level and reduce seepage losses in distribution system.
- 3.** To reclaim the valuable agricultural land getting unsuitable for use due to water logging and salinity resulting out of seepage from canals.
- 4.** To reduce the gap between irrigation potential created and irrigation potential utilized in various projects.

### **Selection Criteria:**

- a. Canal systems (Main canal, Branch Canals, Distributaries, Minor Canals) passing through permeable soils where substantial water is lost due to seepage and percolation. Lining in vulnerable reaches would minimize the seepage and percolation loss.
- b. Canals not carrying the design discharge due to deterioration. Renovation of the system would improve its performance including water use efficiency.
- c. Canals not receiving any other form of financial assistance except O&M grant.
- d. The selection of projects shall be demand based i.e. it shall be based on the application of Pani Panchayats.

To identify the deficiencies in the canal systems, Participatory Walk Through (PWT) is required to be taken up jointly by the Pani Panchayat representatives and field engineers of DoWR.

Priority would be accorded to following category of the distribution systems

- i. Canal systems of medium/major irrigation projects with life span of more than 20 years.
- ii. Where tail end farmers are deprived of getting irrigation facility
- iii. Where additional area can be brought under irrigation coverage especially during Rabi season (Big Storage Projects)

### **Preparation, Examination & clearance of Project Report(PR):**

#### **Project Preparation**

The Project Reports (PR) are to be prepared addressing the following issues.

- Background, present status with reasons for deteriorating condition, remedial measures proposed and outcome after completion. The Project Authority should ensure that this project has not received any financial assistance in last five years from any other funding agencies except normal maintenance and would submit a certificate to this effect while submitting the project proposal.
- Salient feature of the project proposal, Cost, procurement plan and implementation schedule
- Description of the different components of work likely to be included because of Lining such as Repair & Renovation of structures and gates, Construction of new structures, renovation of canals etc should be clearly brought out. The Original L.S. & D.S of canal system has to be included in the report, which will serve as a reference to assess the changes likely to be incorporated into it and the positive impact created in the canal system.
- Total command area coming under the system, status of existing conveyance system with deficiencies hampering the water use efficiency/ performance of the system, details of potential created and utilized and targeted after completion of the project.
- Tee-diagram indicating canal features and proposed interventions
- Benefit Cost Ratio of the project and analysis like internal rate of return may also be included.
- Provisions for measuring device for volumetric measurement of water to be included.

## **Examination of PR**

Project Reports will be furnished to EIC, WR by the concerned Chief Engineers/Chief Construction Engineers for Major and Medium Projects. Inspection note of concerned Superintending Engineers indicating present field conditions and proposed interventions in the Project report is mandatory. For Minor Irrigation Projects, the proposal will be submitted through the Chief Engineer, Minor Irrigation.

**One dedicated team** to be constituted by EIC, WR for examination of Project Reports. The team will comprise of one Executive Engineer and five Assistant Engineers one each from PP&F, Design, OWPO, Minor irrigation and M&E unit. The team will function under the guidance of Director, Planning of CE, PP&F.

(An approach paper indicating broad outlines of design of lining of unlined canals in vulnerable and strategic locations with its impact and possible intervention and of various alternatives of lining of canals and renovation and replacement of structures will be prepared by the DR&QC unit. The same may be drawn up from the expertise gained from OIIAWMIP and OWRCP schemes and their efficacy. The approach paper will be prepared within two months. )

## **Project Clearance**

Technical Clearance: The note prepared by the dedicated team will be placed before the respective state TAC with respect to Major, Medium and Minor Projects for consideration and clearance. After TAC clearance, the Project will be eligible for inclusion under this scheme. Prioritization of the projects for implementation will be made by EIC(WR) and CE,MI in consultation with Project Authority and submit for approval by DOWR.

Administrative Approval: Administrative approval will be accorded by Competent Authority to the project approved by DOWR.

### **Implementation and Financial Arrangements:**

The scheme would be implemented by existing field divisions following standard codal procedures and implementation arrangements.

Budgetary Provision under State Plan would be made for execution of the projects under this scheme. After inclusion of project under this scheme, requisite funds will be provided on annual basis.

### **Monitoring & Evaluation Mechanism:**

A monitoring team would be constituted at EIC level to monitor physical and financial progress at field level. Besides, quarterly physical and financial progress reports in the prescribed formats would be submitted by field units to DOWR monitoring unit/ Monitoring unit of EIC office in respect of major and medium irrigation projects. For Minor irrigation projects, CE, Minor Irrigation would send the report to DOWR monitoring unit with a copy to monitoring unit of EIC for record.

### **Submission of Completion Reports:**

On successful completion of the project, a Completion report is required to be prepared by the field units and to be submitted to DOWR & EIC office for considering the project for its deletion from the Programme. The Completion report should also include details regarding achievements, success stories, pre-project and post-project analysis. The Completion report may also bring out clearly the constraints, if any, encountered during the course of implementation of the Programme in the Project.

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