Glimpses

Check Dam, Satkosia Mayurbhanj

Loose Boulder Check Dam Banki Range, Sundargarh

Percolation Pit Biramitrapur, Sundargarh Mayurbhanj

Loose Boulder Check Dam Hemgir, Sundargarh Mayurbhanj

Graded Earthen Bund Banki Range, Sundargarh

Graded Bund Gopalpur, Sundargarh, Mayurbhanj

Odisha Mineral Bearing Areas Development Corporation (OMBADC)
1st Floor, Aranya Bhawan, GD-2/12, Chandrashekharpur, Bhubaneswar, Odisha-751023
Email: ombadc@gmail.com, Tel: 0674-2300488
www.ombadc.odisha.gov.in

Jyoti Graphics, 0674-2544209, 2953209

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ODISHA MINERAL BEARING AREAS DEVELOPMENT CORPORATION
TRANSFORMING LIVES OF TRIBAL IN MINING AREAS
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Water Conservation, Ground Water Recharge & Soil and Moisture Conservation

Odisha Mineral Bearing Areas Development Corporation (OMBADC)
(A SPV of Govt. of Odisha)

The diversion of forest land for industrial development and other development purposes has adversely affected the quality of soil, quality of air, and water in the mining affected districts of Odisha. To recharge ground water and improving agricultural productivity and soil restoration in the mining affected districts, OMBADC is supporting Department of Forest Environment and Climate Change in the implementation of Soil and Moisture conservation measures. The project was approved in the 14th Board of Director meeting held on 05th April 2019 with an approved budget of Rs. 348.89 Crores.

Key objectives of the project are:

01 Forest Floor treatment will not only capture the rainwater but will also enhance the retention period ultimately to increased infiltration.

02 Drainage Line Treatment will reduce the velocity and increase the retention of water at various levels.

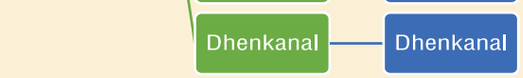
03 Retention and Enhancement of infiltration is the ultimate objective which facilitates recharging of ground aquifer.

04 Interventions for Rainwater Harvesting

The major items of work carried out in Soil and Moisture activities are:

1. Loose Boulder Check Dam
2. Wire Mesh Loose Boulder Check Dam
3. Percolation Pit
4. Graded Bund
5. Subsurface Dyke
6. Staggered Trench
7. Stone Bunding
8. Contour Trench
9. Others (WHS)
10. Earthen Bund

The project is being implemented in the following 12 forest divisions in Odisha:



A brief description of the benefits of the activities undertaken are as follows:

Wire Mesh Loose Boulder Check Dams: This structure is to be created across the drainage line for retention of runoff and reduction of velocity of water. These structures will be bounded by Wire Mesh to resist the flow of water and to increase the longevity of the structure, so that these structures can function for a long period.

Loose Boulder Check Dam: These are structures used mainly to control channel erosion and to stabilize gully heads and it helps in checking the velocity of water and silt retention.

Graded Bund: These are made to increase the time of concentration of run-off. Earthen graded bunds can be erected on the low slope forest and pediments of hills which will guide the runoff along a longer path to increase time of concentration and promote infiltration.

Sub Surface Dyke: These are underground cement concrete walls that prevent escape of ground water through seepage and also help in ponding the surface flow on the nallahs. They will conserve the water below surface level artificially and recharge the ground water.

Water Harvesting Structure (WHS): This is for storing of surplus water of a catchment area and bringing the same to other areas, where it is utilised for different uses like crop production, domestic, cultivation, pisciculture etc.

Staggered Trench: To slow down surface water run-off and soil erosion.

Percolation Pit: It helps draw water downward through the soil, recharging groundwater.