

Hydrology Project

Hydrological Information is required to provide reliable data sets for long term planning, design and management of water resources and water use systems and research activities in related aspects together with improvement in the infrastructure for data collection. In Orissa, under Hydrology Ph-I funded by World Bank, 56 river gauge stations, all of which are equipped with rain gauges and 9 Full Climatic Stations (FCS) have been constructed. The data after being collected are processed through dedicated software like SWDES and HYMOS and exchanged with CWC and IMD for inter agencies data validation. Basin wise Hydrological information system network developed are given in the following table.

Table - 4.12
Hydrological Information System Network

| Basin | Standard Rain Gauge Station (nos) | | ARG (nos) | RGS (nos) | | FCS (nos) | WQ/Sed laboratories (nos) | |
|--------------|-----------------------------------|-----------|-----------|-----------|-----------|-----------|---------------------------|-----------|
| | HP | Non-HP | | G.D | WL | | Sed. | WQ+Sed |
| Subernarekha | 2 | - | 1 | 2 | - | - | 1 | 1 |
| Budhabalanga | 2 | - | - | - | - | 1 | 1 | 1 |
| Baitarani | 2 | 7 | 1 | 2 | - | 1 | 1 | 1 |
| Brahmani | 4 | - | - | 2 | 2 | - | 1 | 1 |
| Mahanadi | 29 | 20 | 4 | 21 | 6 | 4 | 10 | 3 |
| Rushikulya | 5 | 2 | 3 | 5 | 1 | 1 | 2 | 1 |
| Vansadhara | 3 | 5 | - | 3 | - | 1 | 1 | 1 |
| Nagabali | 2 | - | - | 2 | - | - | 2 | 1 |
| Indravati | 3 | - | 2 | 4 | 2 | 1 | 1 | 1 |
| Kolab | 4 | - | 1 | 3 | 1 | - | - | - |
| Total | 56 | 34 | 12 | 44 | 12 | 9 | 20 | 11 |

ARG-Automatic Rain Gauge, RGS-River Gauge Station, GD-Gauge Discharge, WL-Water Level, FCS-Full Climatic Station, WQ-Water Quality, Sed-Sedimentation.

Further under Hydrology Ph-I, an integrated bathymetry system has been procured to compute the silt deposits in the major reservoirs of the state. At present, the reservoir sedimentation survey work of Hirakud reservoir is under progress. Subsequently, such exercise will be extended to other reservoirs of the state.

HP-II is a follow on of Hydrology Project Phase-I (HP-I) to extend and promote the sustained and effective use of HIS by all potential users concerned with Water Resources Planning and Management. This project is funded by World Bank and implemented nationwide. Orissa is a participatory State in this Project.

Objective

1. To extend and promote sustained and effective use of the Hydrological Information System (HIS) created during HP-I.
2. Formulation of design aids and development of design support system for early flood warning, drought monitoring & management.
3. Strengthening the capabilities of implementing agencies at state/central level in HIS data utilization for efficient, water resource planning and management.
4. Awareness building and outreach services about HIS.

Status

The estimated cost of Orissa portion work is Rs.27.51 cr. (Surface water component-Rs.13.28 cr. & Ground Water Component –Rs.14.23 cr.). During 2009-10, an amount of Rs.3.495 cr. (Rs.2.557 cr. for surface water & Rs.0.938 cr. For ground water) has been spent under this programme. An outlay of Rs.8.05 cr. (Rs.5.05 cr. under surface water and Rs.2.00 cr. under ground water) has been provided for the financial year 2010-11.

