

Water Projects & Planning Wing

WP&P wing has Eight functional organizations, each headed by a Chief Engineer/Advisor, all stationed at CWC(Hq). The functions of organisation are carried out by a pool of engineers constituting Director/SE; DD/EE; AD/AEE/AD-II/AE and other support staff. Organizational details under WP & P are presented in succeeding Paragraphs.

Director, WP&P coordination is responsible for review/monitoring of physical and financial achievement in respect of plan schemes, scrutiny/preparation and processing of SFC/EFCMemos of various plan schemes/projects, compilation/preparation and submission of material for performance budget, budget brief, annual reports of CWC and MoWR, annual action plan of CWC and MoWR and material for various monthly/quarterly/half yearly/yearly returns and assisting Member (WP&P) in different administrative and technical matters. This Directorate will keep watch on the latest development/stress areas particularly in policy planning; and suggest measures for possible realignment of Wings activities/capacity building of its Human resources etc. This Directorate would also submit agenda points for consideration/deliberation of Members in a Commission Meeting. This apart, Dte would also collect Performance Indicators (PIs) and work plans from each Dte/Organization- as the case may be, and underscore areas where intervention of Member (WP & P) is warranted for raising the performance of the wing. This Dte will also submit a brief report on significant activities/achievements of the wing to TCDte on monthly basis.

Organizations under WP & P Wing

1. Basin Planning and Management Organisation (BPMO)

CE,BPMO is responsible for, preparation of guidelines for formulation of river basin master plan including integrated reservoir operation for deriving optimum utilisation of water resources through multi-disciplinary system approach considering river basin as a unit for water planning, studies related to national perspective plan for water resources development, providing technical assistance to National Water Resources Council, an

apex body for formulating policy in water National Water Board. Five engineering Directorates with the following functions are covered under BPMO:-

Basin Planning (BP)-I Directorate

Director (BP)-I is responsible for co-ordination with states for establishing River Basin Organisations as per the directives of National Water Policy, examination of project reports from basin planning point of view, reassessment of water resource potential in the river basins of India, technical and secretarial work for Standing Sub-Committee for assessment of availability and requirement of water for diverse uses in the country. This Dte is to prepare Basin plans/IWRDM of Mahanadi basin or a basin/s as identified for the Dte applying suitable software like e-Water/RIBASIM or WEAP. This will actively engage itself in generating scenarios for future for basin under its study. This Dte will develop Quick Start Guide/Application Guide/ User guide to help CWC officials learn new soft techniques quickly to finish water availability assessment within a predefined timeline. It will also engage itself in capacity building of field units in accomplishing the goal of reassessment of water potential with the help of other Dtes.

BasinPlanning-2 Directorate

Director (BP)-2 is responsible for co-ordination with states for establishing River Basin Organisations as per the directives of National Water Policy, examination of project reports from basin planning point of view, reassessment of water resource potential in the river basins of India, technical and secretarial work for Standing Sub-Committee for assessment of availability and requirement of water for diverse uses in the country (as assigned to it by Member (WP & P)). Will prepare Basin plans/IWRDM of Godavari basin or basin/s marked for this Dte using suitable software like e-water/ RIBASIM or WEAP. Will actively engage it in generating scenarios for future.

Basin Planning-3 Directorate

Director (BP)-3 is responsible for co-ordination with states for establishing River Basin Organisations as per the directives of National Water Policy, examination of project reports from basin planning point of view, reassessment of water resource potential in the river basins of India, technical and secretarial work for Standing Sub-Committee for assessment of availability and requirement of water for diverse uses in the country.

Will prepare Basin plans/I WRDM of Krishna basin or a basin/s as identified for the Dte applying resources sector and serves as secretariat to the suitable software like e-Water/RIBASIM or WEAP. It will also associate itself with basin planning activities being carried out by World Bank for Ganga basin.

National Water Planning (NWP) Directorate

Director (NWP) is responsible for providing assistance to *National Water Resources Council* (NWRC) and acts as **technical secretariat to National Water Board (NWB)-formed** in 1990, preparation of annual status report on irrigation development through major and medium projects under tribal sub-plan and special component plan, studies related with National Perspective Plan for water resources development, examination of various proposals for water resources, utilisation and water transfer links and functions as a nodal directorate in Central Water Commission for National Water Development Agency (NWDA) and liaisons with NWDA on specific references and studies including examination of water balance studies, prefeasibility reports and feasibility reports. This Dte is This tasked to compile scenarios generation reports of basins prepared by BP-1, 2 & 3 Dtes, and place before NWB for its deliberations. It will also focus on matters related to preparation of short, medium and long-term vision of the Ministry etc., to be raised in National Water Board" National water framework law and views of CWC, Interlinking of Rivers-Indian perspective vis-a-vis world experience; from Policy Research and Strategic Planning point of view.

Reservoir Operation (RO) Directorate

Director (RO) is responsible for, simulation studies for integrated operation of reservoirs using software like HEC-ResSim or any other compatible software for this purpose, preparation of Reservoir Regulation Manual, co-ordination of activities of interstate committees on reservoir regulation and operation, standardizing activities in the field of reservoir regulation, operation and other related aspects and acts as a nodal directorate for activities of Indian Water Works Association; to look into the work of development of models for medium range forecasting for major river systems using rainfall as an input and operationalizing it as a dynamic tool to provide assistance to States in planning their resources in ensuing periods. It will also focus on matters related to present and distant Water resources scenario in India, and even abroad,

possible measures to overcome stress in the sector etc. from Policy Research and Strategic Planning, point of view.

3. Environmental Management Organisation (EMO)

Chief Engineer, EMO is responsible for, Environmental Impact assessment (EIA) and monitoring of implementation of environmental safeguards in water resources projects, rehabilitation & resettlement of project affected people, reservoir sedimentation including watershed management and application of remote sensing techniques in water resources development and management. Three Directorates are functioning under EMO and their functions are as under:-

Environment Management (EM) Directorate

The Dte IS responsible for, examination of environmental impact assessment reports received from the Ministry of Environment & Forests (MOEF) and offering comments/suggestions at Expert Committee (EC) meeting of MOEF for environmental clearance (Chief Engineer(EMO) is a member representing, CWC), preliminary screening of projects from environmental angle before taking it for detailed examination in CWC, conducting environmental evaluation/impact assessment study of some selected projects, assisting Chief Engineering (EMO) in his functions in the capacity of Chairman of Technical Advisory & Review Committee related to Environmental Impacts Assessment and Socio-Economic Study of Pancheshwar multipurpose project, facilitating forest clearance from MOEF, participating in Forest Advisory Committee meetings and examination of references from MOEF/ MoWR for funding of environment related project proposals of NGOs. It is responsible for, monitoring of implementation of environmental safeguards for river valley projects through Multidisciplinary - Inter-Ministerial National Environmental Monitoring Committee for River Valley Projects (NEMCRVP), State Environmental Monitoring Committee and Project Environmental Management Committees, organizing meetings of NEMCRVP and drafting of various standards under WRDC 23 (Assessment and Management of Environmental Impacts of River Valley Project). It is also responsible for, looking after the rehabilitation and resettlement aspects for affected persons of reservoir projects, assistance in formulation of National Rehabilitation and Resettlement Policy (Ministry of Rural Development), application of guidelines for preparation of rehabilitation and resettlement action plan as well as maintenance of related database, examination of rehabilitation and resettlement

aspects and action plans for multipurpose/irrigation projects referred by the States and Union Territories and on the spot assessment of resettlement sites of the reservoir projects for appraisal of implementation of R&R policies formulated by States/Project Authorities. *The directorate also deals with the matters pertaining to minimum flow/environmental flow*

Remote Sensing Directorate

Director (RS) is responsible for application of Remote Sensing and GIS Techniques in water resources sector, collection, collation and analysis of spatial data using GIS techniques, capacity building in application of spatial data technology for water resources development and management, participation in the activities of National Natural Resources Management System (NNRMS) in relation to water resources development and management and coordination with ISRO, NRSA and other space agencies regarding application of spatial data technology, advising the state irrigation departments and MoWR^{*} in issues related to application of spatial data technology in the water resources development and management. This Dte will also act as nodal Dte for pursuing the activities of National Water Informatics Centre (NWIC) besides populating and constantly updating India-WRIS website; *Integrating State WR data/State WRISs with IndiaWRIS, developing uniform data protocols for WRIS data so as to achieve consistency in the multi-agency data, etc.*

Water Shed and Reservoir Sedimentation Directorate

Director (WS&RS) is responsible for, collection and compilation of sediment data of various reservoirs in the country and updating compendium prepared earlier, conducting hydro-graphic survey of important reservoirs in the country, assisting Project Authorities/State Governments in matters connected with hydro-graphic surveys, sediment control measures, sediment measurement techniques, assessment of sedimentation rates/sediment trap efficiency in Indian reservoirs for better future planning etc., coordination with Ministry of Agriculture on Soil Conservation or Enhancing Productivity of Degraded Lands in the catchments of River Valley Projects and Flood Prone rivers (RVP & FPR) under Macro Management and preparation of status report on Watershed Management and Water Harvesting. Additionally, activities of Indian National Committee of Surface Water (INCSC) will also be handled by this Dte.

4. Irrigation Management Organisation (IMO)

Chief Engineer (IMO) is responsible for, irrigation planning including crop water requirements and water availability aspects of irrigation projects as a part of project appraisal, irrigation water management aspects, examination of projects from interstate angle including providing assistance to Ministry of Water Resources in resolution of interstate water disputes, monitoring of reservoir storage position of important reservoirs as an important component of irrigation water management and issue of weekly bulletins to user agencies. A separate bulletin showing daily storage status of reservoirs in Cauvery basin is also being issued. Five Directorates are functioning under IMO and their functions are as under:-

Irrigation Planning (North) Directorate

Director (IP-N) is responsible for, carrying out technical scrutiny/appraisal of basic planning and irrigation planning aspects including economic viability of major Irrigation and multipurpose water resources development projects including ERM projects for the Northern states namely Haryana, Punjab, Himachal Pradesh, Rajasthan, J&K, Uttarakhand and Uttar Pradesh; examination of water balance studies and feasibilities report of the above mentioned five states prepared by NWDA. Dte will also promote among stakeholders the use of e-tools like CROPWAT/ CLIMWAT developed by Food and Agriculture Organization (FAO) for estimation of crop water requirement as per cropping pattern practiced/proposed in command area.

Irrigation Planning (South) Directorate

Director (IP-S) is responsible for, technical scrutiny/appraisal of basic planning and irrigation planning aspects including economic viability of major irrigation and multipurpose water resources development projects including modernization projects of States' other than covered by IP (North Dte); examination of water availability aspects of hydel, thermal and other power projects and water balance studies and feasibilities report prepared by NWDA of States other than covered by IP (North Dte). It is also nodal Directorate for beneficiaries Participation Programme and studies for assessing the irrigation benefits and allocation of cost between irrigation and power sectors in respect of multipurpose projects. Dte will also promote among stakeholders the use of

e-tools like CROPWAT for estimation of crop water requirement as per cropping pattern practiced/proposed in command area.

Inter-State Matters (ISM) Directorate -1

Director (ISM)-1 is responsible for, matters relating to inter-state water disputes, court cases tribunal awards, agreements etc. as well as assisting the Ministry of Water Resources in these matters, secretariat works pertaining to Cauvery Supervisory Committee/Babhali Barrage on river Godavari, Formulation / review of various existing and proposed constitutional provision / water related acts/laws in the country, examination of major and medium irrigation and power projects from interstate angle including NWDA reports referred to Central Water Commission, preparation of guidelines for allocation of surface waters of interstate rivers, work relating to various zonal council meetings and documentation of various interstate and international agreements and tribunal awards, water laws/water rights etc. This Dte will cover matters pertaining to basins other than assigned to ISM Dte-2. This Dte will be repository of all legal instruments/issues pertaining to water sector.

Inter-State Matter.; (ISM) Directorate -2

Director (ISM)-2 is responsible for, matters relating to inter-state water disputes, court cases tribunal awards, agreements etc. as well as assisting the Ministry of Water resources in these matters, examination of various existing and proposed water laws in the country, examination of major and medium irrigation and power projects for Ganga, Indus and Brahmaputra basins from interstate angle including NWDA reports referred to Central Water Commission, finalization of guidelines for water allocation of interstate rivers; sharing of Yamuna water between UP & Uttaranchal, work relating to various zonal council meetings, documentation of various interstate and international agreements and tribunal awards, water laws/water rights etc. It will also deal with matter related to international laws dealing with trans-boundary rivers; international treaties with neighbouring countries; water issues in United Nation; cooperation with other countries in water sector and burning issues related to Centre State relationship,

Water Management (WM) Directorate

Director (WM) is responsible for, monitoring of reservoirs levels and storage capacity of important reservoirs, issue of status bulletins thereon and compilation of storage

behaviors of important reservoirs of the country and issue of weekly bulletins in respect of five important reservoirs of Cauvery Basin. It also acts as a nodal Directorate for coordinating the works of ICAR - CWC joint panel and the activities related to IWRA (International Water Resources Association). The Dte will strive to increase the numbers of reservoirs being monitored progressively. Historical as well as current data to be integrated with India WRIS, Drought monitoring and management, urban and rural drinking water supply scenario,, Coordination with CGWB regarding GW. Development scheme, Legal aspects of ground water, GW scenario across the country - flagship program of the ministry and its likely impact on WR sector.

5. Project Appraisal Organisation (PAO)

Chief Engineer(PAO)is responsible for, examination of techno-economic viability of multipurpose as well as major and medium irrigation projects, appraisal the civil **component. water** availability and inter-state aspects of hydro as well as thermal power project proposals received from Central Electricity Authority and presenting the viable and eligible Irrigation, Flood Control and Multipurpose Projects to the Technical Advisory Committee (TAC) constituted by the MOWR, for recommendation for investment clearance by the Planning Commission. Six engineering Directorates are functioning under PAO and their functions are as under:-

Project Appraisal (Centre) Directorate

Director PA (C) is responsible for appraisal of preliminary/detailed project reports pertaining to major inter-state project proposals in respect of Maharashtra, Madhya Pradesh, Rajasthan, Gujarat, Assam and Goa

Project Appraisal (North) Directorate

Director (PA-N) is responsible for appraisal of preliminary/detailed project reports pertaining to major inter-state project proposals in respect of Bihar, Jharkhand, Uttar Pradesh, Uttaranchal, West Bengal, Punjab, Haryana, Himachal Pradesh, Jammu & Kashmir and Delhi, convening meetings of the screening committee to decide viability of projects for taking up detailed examination, convening meetings of the Advisory Committee on irrigation, flood control and multipurpose projects.

Project Appraisal (South) Directorate

Director (PA-S) IS responsible for appraisal of preliminary/detailed project reports pertaining to major inter-state project proposals in respect of Andhra Pradesh, Karnataka, Tamil Nadu, Kerala, Orissa, North Eastern states (except Assam) and Sikkim.

Cost Appraisal (HWF) Directorate

Director (HWF) is responsible for scrutiny of cost estimates of hydel, water supply and flood control projects.

Cost Appraisal (Irrigation) -1 Directorate

Director (CA-I) is responsible for scrutiny of cost estimates of major national & international irrigation and multipurpose projects originating from northern States namely States of NE region, Bihar, Chandigarh, NCT of Delhi, Gujarat, Haryana, HP, J & K, Jharkhand, Punjab, Rajasthan, UP, Uttarakhand, & West Bengal.

Cost Appraisal (Irrigation)-2 Directorate

Director (CA-I2) is responsible for scrutiny of cost estimates of major national & international irrigation and multipurpose projects originating from Southern States not covered by CA-I Dte. It will further support field units/State Govt. in preparation of DPR of various Multi-purpose projects. The Dte will be an apex unit under PAO who not only extend necessary help/input to field formation/project authorities but also conduct pre/Mid-term DPR meeting with stakeholders, or act proactively to minimize delay in appraisal/clearances of DPR. This aside, this Dte will find out knowledge gaps/technological gaps, and take steps of capacity building of personnel through training Dte of CWC/NWA, Pune. Will also come out with model DPR format/template to be adopted by cwc field units/States authorities/Private sector entities. Will also engage itself in update of DPR guidelines as and when it is felt essential. Forward approach to strengthen / improve centre-state relationship so as to push implementation of multipurpose project.

6. Project Preparation Organisation (PPO)

Chief Engineer (PPO) is responsible for, coordinating with World Bank and other lending agencies which are providing financial support to irrigation and multipurpose projects and water resources consolidation/restructuring projects, appraisal for their techno-economic viability of projects for external funding and monitoring of their progress of implementation, providing assistance to the State governments in preparation of projects as per the stipulation laid down by Government of India and the lending agency. *It is also responsible for appraisal & monitoring of National projects.* Three Directorates are functioning under PPO and their functions are as under:-

Water Bodies & Economics Directorate

This Dte is responsible for appraisal & processing / preparation of comments/ observations on the DPR/proposals of various State Govts., received from the Regional offices / Field units of CWC under the scheme Repair, Renovation & Rehabilitation (RRR) of Water Bodies during the XII Plan, processing and recommendation of the proposal to MoWR, RD&GR for the release of the 1st instalment! 2nd instalment for the water bodies which were approved / included during XI/XII plan scheme of RRR of Water Bodies and prepare a model DPR format for RRR schemes.

The directorate will also deal in Water Pricing aspects, namely, Guidelines for Determination of water pricing for various uses, Status of water pricing in the country and Guidelines for volumetric measurement of water for pricing etc.

External Assistance (EA) Directorate

Director (EA) is responsible for appraisal and monitoring of externally aided major and medium irrigation projects, organizing & conducting review meetings of externally aided major and medium irrigation projects, participating in supervision/mid-term/special/ implementation review missions of external funding agencies, such as the World Bank, Asian Development Bank, Japan International Cooperation Agency (JICA) etc.; participating in review meetings of Ministry of Water Resources and Department of Economic Affairs, MOF, reviewing quarterly progress and status reports on externally aided projects and preparing technical reports/notes, review aid memoirs/supervision reports/desk review reports of funding agencies, and providing assistance to the State Govts. For preparation of project proposal for obtaining external assistance for Water sector projects. It also conduct Screening Committee meeting for selection of

arbitrators for the panel of arbitrators maintained in the CWC for examining disputes arising out of the works contracts between states and the contractors and nominating arbitrator for the Board of Arbitrators for the purpose.

National Projects Directorate

Director (NP) is responsible for appraisal and monitoring of national projects, and it works as the Secretariat of High Power Steering Committee for implementation of National Projects.

7. Project Monitoring Organisation (PMO)

Chief Engineer (PMO) is responsible for monitoring projects at central level under the aegis of three tier monitoring system' recommended by the State Irrigation Ministers in the conferences of 1975 & 1976. PMO monitors inter-state/externally assisted/centrally sponsored projects with the objective of their timely completion, preparation of state-wise annual report on irrigation development through major and medium projects. The PMO along with field monitoring units of CWC monitors projects receiving central loan assistance ((LA) under normal and fast track Accelerated Irrigation Benefit Programme (AIBP) launched by MoWR in 1996-97. The PMO is responsible for capacity building efforts for implementation of PMKSY-AIBP-CADWM& other schemes of MoWR. Seven Directorates are functioning under PMO and their functions are as under-

Monitoring Directorate

Director (Monitoring) is responsible for, monitoring of selected major/multipurpose irrigation projects and preparation of status reports of monitored projects, preparation of state-wise annual reports on irrigation development, co-ordination with CWC field units/ MoWR /Planning Commission in respect of monitoring activities for projects under general & AIBP monitoring and scrutiny of proposals for CLA under AIBP and sending recommendations for sanction/release of CLA to the Ministry of Water Resources. State-wise distribution of states under Monitoring directorates is given below:

Directorates	Distribution of States
Monitoring (Central)	M.P., Chhattisgarh, Maharashtra and Goa states (Work of PMKSY- AIBP Directorate is now with Mon Cent Dte)

	This Dte will act as nodal unit in CWC to coordinate and advance the activities related to PMKSY-AIBP. This Dte will also be the repository of invaluable materials vital to influence decision for well coordinated implementation of works planned under PMKSY. The Dte will also bring / out detailed guidelines regarding prioritization of Irrigation projects for funding by various agencies on the pattern suggested by NCIWRD in 1998. Will assist CE, PAO in his role as Member Secretary, Executive Committee, PMKSY
Monitoring (East& West)	Assam, Bihar, Jharkhand, Tripura, Manipur, Meghalaya, West Bengal Sikkim, Arunachal Pradesh, Mizoram and Nagaland states Gujarat, Rajasthan, Punjab, UT Dadra & Nagar Haveli, Daman & Diu, Chandigarh
Monitoring (North)	UP, Uttaranchal, Haryana, J &K, Delhi and Himachal Pradesh states
Monitoring (South)	A.P., Orissa, Tamil Nadu, Kerala, Karnataka, Telangana, U.T. of Pondicherry, Andaman and Nicobar and Lakshadweep

Planning and Progress (P&P) & CAD Directorate

Director (P&P) is responsible for updating of compendium of major and medium irrigation projects, providing assistance to working group constituted by the Planning Commission in formulation of five year plan proposals for major & medium irrigation programme, preparation of status report on irrigation development in the country (major and medium irrigation sector) including maintenance of data base on IPC & IPU and updation of state-wise index maps showing Major & Medium irrigation projects, coordination with MoWR and Field Units of CWC in respect of matters related to monitoring of projects under CAD programme. It shall promote PIM and formation of WUAs in the States / UTs by developing linkages with WALMIs/IMTIs. Besides, this Directorate is entrusted with the co-ordination work of undertaking the Pilot Census of the Major & Medium Irrigation projects to be conducted in two phases during the 12th Plan under the Plan Scheme of DWRIS.

8. Performance Overview & Management Improvement

Organisation (POMIO)

Chief Engineer (POMIO) is responsible for, the Performance evaluation and water use efficiency studies of completed irrigation projects through consultants; water logging, soil salinity and alkalinity assessment with remedial measures in MMI commands; scrutiny of the drainage projects proposals; promotion of Water Audit, Benchmarking, PIM, WUAs in the States and UT by developing linkages with WALMIs/IMTIs and rendering expert assistance to the National Water Mission. Functions of directorates under POMIO are functioning under POMIO and their functions are as under:-

Evaluation of Water Utilisation (EWU) Directorate

Director (EWU) is responsible for identification and analysis of problems of under-utilization of created irrigation potential, Performance Evaluation Studies of completed irrigation projects through Consultants, which shall include assessment of water use efficiency, IPC-IPU Gap diagnosis, environmental, socio-economic, agro-economic & BC ratio. It shall assess water logging, soil salinity and alkalinity in MMI commands including remedial measures. It shall scrutinize the research proposals received through INCSW and discharge secretariat functions for special committee on drainage.

It will also act to promote advanced irrigation techniques over traditional ones; irrigation scheduling after determination of crop water requirement by single or dual crop coefficient method using Penman Monteit formula as recommended by FAO. Water saving technique in thermal power units - by switching from open loop to close loop cooling system etc.

Irrigation Performance Overview (IPO) Directorate (SIMS Schemes)

Director (IPO) is responsible for preparing and revising guidelines for various studies related to major and medium irrigation projects. It is also responsible for conducting water use efficiency of selected completed irrigation projects. It shall promote Water Audit and Benchmarking, in the States / UTs by developing linkages with WALMIs/IMTIs. It shall scrutinize Water use efficiency studies carried out by various agencies. It shall render expert assistance to the National Water Mission through examination of the inception, draft and final reports of the Baseline WUE Studies being conducted by the Mission. Documentation, dissemination as well as promotion of best irrigation / agricultural practices in the country and related matter.

Policy & Research Directorate

This Dte will focus/coordinate on matters related to policy, strategic planning and research in field of water resources development and management. Key activities of this Dte are:

- Identification and coordination of action /policy research in water resources sector, MoUs for collaboration with national! International organizations/institutions.
 - preparing and reviewing strategic vision document for the sector aswell as CWC.
 - Devising strategic policy interventions needed for ensuring water security in the country, optimal and efficient utilisation of waters resources in the country.
 - strategic planning for implementation of prioritized schemes, policy framework etc
- Additional task of this Dte is to handle/coordinate grievances of technical natures received through CPGRAMS/PMO/Ministry.

River Board Directorate Now known as CB&PM

Director (RB) is responsible for, providing support to Chairman, CWC for matters related to his participation in various river Board / Committees formed for project construction / management, matters related to contractual cases and assisting Chief Engineer, CMO, who is Member of Permanent Standing Committee of Sardar Sarovar Construction Advisory Committee.

Dte IS responsible for, providing consultancy/assistance in project preparation including cost estimates, assistance In procurement of construction equipment, techno-economic appraisal of project reports, performance evaluation of construction equipment, examination of technical bids for construction of civil components of the project with reference to equipment planning & deployment and assistance to Bureau of Indian Standards. It is responsible for, construction, equipment planning and techno-economic appraisal of projects; providing assistance to projects/states in procurement and disposal of heavy earth moving and construction equipment by way of tender evaluation, fixing reserve price/transfer value of equipment, rehabilitation of surplus equipment, settling claims of major construction agencies by finalising hire charges of equipment, rate analysis of specific item of work etc.; monitoring of utilisation of heavy earthmoving and construction equipment deployed at various major irrigation and hydropower projects; collection, compilation and updating of data on census of heavy earthmoving construction and tunnelling equipment in Water Resources Sector in the country; assisting Manpower Planning Cell in studies to assesstechnical manpower

requirement and its balanced utilization in construction and during operation and maintenance of major/medium irrigation and multipurpose projects.

9. Information System Organisation (ISO)

Advisor (ISO) is responsible for collection, compilation and update of water related statistics, hydrological data for all non-classified basins and dissemination thereof. This organization shall closely interact with India-WRIS team to get its publication/Statistics hosted on the India-WRIS site. Two Directorates are functioning under ISO and their functions are as under:

Water Resources Statistics (WRS) Directorate

It is responsible for compilation and updation of water and related information from different agencies and dissemination thereof through the following publications.

- I. Water and Related Statistics, biennial publication
- II. Water Sector at a Glance, biennial publication
- III. Handbook on Water and Related Information, annual publication

Hydrological Data (HD) Directorate

It is responsible for compilation and updation of hydrological data pertaining to discharge sedimentation and water quality data in respect of non-classified basins only and dissemination thereof. Besides, this directorate is responsible for updation of the information pertaining to financial aspects of irrigation projects, water pricing in irrigation sector etc. The following publications are brought out by this directorate.

- I. Integrated Hydrological Data Book, biennial publication
- II. Financial Aspects of Irrigation Projects in India, quin-quennial publication
- III. Financial Aspects of Flood Control & Anti Sea Erosion and Drainage, quin-quennial publication
- IV. Pricing of Water in Public System in India, quin quennial publication.

ORGANOGRAM OF WP&P AS ON AUGUST 2020

