



**GOVERNMENT OF INDIA**

**OUTCOME BUDGET**

**2010 - 2011**

**MINISTRY OF WATER RESOURCES**

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## EXECUTIVE SUMMARY

The Outcome Budget 2010-11 of this Ministry has been prepared in accordance with the broad format contained in the guidelines issued by the Ministry of Finance, highlighting physical dimensions of the financial budgets indicating actual physical performance in the financial year 2008-09, performance in first 9 months of the financial year 2009-10 and the targeted performance during 2010-11. This has the following chapters covering different aspects of the Ministry:

Chapter	Aspect(s) covered
<b>I</b>	It gives brief introductory note on the functions of the Ministry, organizational setup, planning and policy framework and programmes / schemes being implemented by the Ministry. Briefly, the Ministry of Water Resources in the Government of India is responsible for laying down policy guidelines for overall development, conservation and management of water as a national resource, overall national perspective and coordination in this regard including coordination of diverse water uses. Under the Cabinet Minister, Minister of State, Secretary and one Special Secretary, the Ministry is organized under the administration wing, coordination wing, finance wing and nine technical wings. The Ministry has two attached offices, seven subordinate offices, seven statutory bodies, two autonomous bodies (societies) and two public sector undertakings. For XI plan period, the activities under various programmes / schemes being implemented / monitored by the Ministry have been clubbed into 15 central sector and 5 state sector schemes (one centrally sponsored scheme of CAD&WM has been shifted to State Sector from 2008-09).
<b>II</b>	It contains a tabular format, which may be visualized as “vertical compression and horizontal expansion” of the Statement of Budget Estimate (SBE) 2010-11. The main objective is to establish a one-to-one correspondence between Financial Budget 2010-11 and Outcome Budget 2010-11. The details comprise the financial outlays, projected outputs and projected/budgeted outcomes (intermediate, partial and final, as the case may be).
<b>III</b>	It details reform measures and policy initiatives taken by the Ministry and how they relate to the intermediate outputs and final outcomes in areas such as public private partnerships, alternate delivery mechanisms, social and gender empowerment processes, greater decentralization, transparency, etc.
<b>IV</b>	It gives scheme-wise analysis of physical performance with reasons for variations; explaining the scope and objectives of individual programmes / schemes, giving their physical targets and achievements during 2008-09 and those upto third quarter of 2009-10.
<b>V</b>	It contains financial review covering overall trends in expenditure vis-à-vis Budget Estimates and Revised Estimates in recent years. This chapter also gives position of outstanding utilization certificates and unspent balances with states and implementation agencies.

Chapter	Aspect(s) covered
VI	It contains review of performance of statutory / autonomous bodies and public sectors undertakings under the administrative control of the Ministry.
2.	The Ministry adopted National Water Policy in 1987 and the same was subsequently revised. The revised National Water Policy was adopted by the National Water Resources Council under the Chairmanship of the Prime Minister of India in its 5 <sup>th</sup> meeting held on 1 <sup>st</sup> April, 2002.
3.	The Central Water Commission, an attached office of MOWR, carries on specific activities related to hydrological observations at key stations, survey & investigations of identified projects particularly in North Eastern Region, assistance to States in planning, design and appraisal of water resources projects and flood forecasting. The Central Water Commission (CWC) carries out general monitoring of selected on-going major, medium and extension, renovation and modernization (ERM) of irrigation projects through its various Monitoring Directorates and Field formations. The Commission particularly monitors implementation of major, medium and selected minor irrigation projects receiving central assistance under Accelerated Irrigation Benefits Programme (AIBP) and schemes for Command Area Development & Water Management. As a part of monitoring, the projects are visited by officers of CWC on regular basis. The command area development projects are also visited by the officers of Command Area Development Wing of the Ministry to monitor various activities under the programme.
4.	The important activities of Central Ground Water Board, a subordinate office of the Ministry of Water Resources, include ground water management studies, ground water monitoring, geophysical studies, exploratory drilling, artificial recharge & rain water harvesting studies, remote sensing studies, water quality analysis, short term water supply investigations, regulation of ground water development, mass awareness and training programme etc. Major achievements during 2009-2010 (Up to 31 <sup>st</sup> December, 2009) under the scheme of Ground Water Management and Regulation include coverage of 1.52 Lakh sq. km under Ground Water Management Studies during pre-monsoon and 82843 sq. km during post-monsoon, drilling of 495 wells under the programme of Scientific Ground Water Exploration supported by Geophysical & Remote Sensing Studies, Monitoring of ground water in 15640 ground water observation wells, 80 Water Supply Investigations for Defence and other departments and preparation of various reports. Five Demonstrative recharge projects on “Artificial Recharge to Groundwater and Rainwater Harvesting” have been taken up in Tamil Nadu, Andhra Pradesh and Karnataka. A Scheme of “Artificial Recharge to Ground Water through Dug Wells” is being implemented in 7 states namely Andhra Pradesh, Maharashtra, Karnataka, Rajasthan, Tamilnadu, Gujarat and Madhya Pradesh. The scheme is being implemented at an estimated cost of Rs. 1798.71 Crores in which the subsidy component is Rs. 1499.27 Crores. The main objective of the scheme is to augment the ground water resources in over-exploited/Critical/Semi-critical areas in 7 states.
5.	Financial and physical progress in respect of various central sector schemes is monitored by the Ministry through regular periodic expenditure review meetings with concerned implementation agencies. Meetings with state Secretaries of Water

Resources/Irrigation/ Flood Control are convened for monitoring of implementation of state sector schemes.

**6.** Other organizations under this Ministry like Central Soil & Materials Research Station, Central Water & Power Research Station and National Institute of Hydrology are engaged, inter-alia, in research and development activities in the water resources sector.

**7.** Under Information Education and Communication Scheme, mass awareness activities of the Ministry and its organizations are implemented with a view to create awareness among various target groups about the importance of optimum development and management of Water Resources in a holistic manner. A committee reviews the Media Plan from time to time to ensure effective implementation of the activities and to take timely remedial measures and corrective actions.

**8.** Investigation of Water Resources Development Scheme is regularly monitored by the Ministry and its concerned organizations. Financial progress is monitored monthly and physical progress is monitored on quarterly basis. To inform the general public about the progress in this regard, the concerned organizations under the Ministry are putting the details of physical/financial targets vis-à-vis achievement on their respective web-sites and updating it regularly.

## CHAPTER - I

### **BRIEF INTRODUCTORY NOTE ON THE FUNCTIONS OF THE MINISTRY/ DEPARTMENT, ORGANIZATIONAL SET UP, LIST OF MAJOR PROGRAMMES / SCHEMES IMPLEMENTED BY THE MINISTRY/ DEPARTMENT, ITS MANDATE, GOALS AND POLICY FRAMEWORK**

#### **INTRODUCTION**

1.1 Ministry of Water Resources is responsible for overall development, conservation and management of water as a national resource, overall national perspective and coordination in this regard including co-ordination of diverse water uses.

1.2 The Ministry's functions as per Allocation of Business Rules, are as follows:

- 1) Development, conservation and management of water as a national resource; overall national perspective of water planning and coordination in relation to diverse uses of water.
- 2) National Water Resources Council.
- 3) General Policy, technical assistance, research and development, training and all matters relating to irrigation, including multi-purpose, major, medium, minor and emergency irrigation works; hydraulic structures for navigation and hydro-power; tube wells and groundwater exploration and exploitation; protection and preservation of ground water resources; conjunctive use of surface and ground water, irrigation for agricultural purposes, water management, command area development; management of reservoirs and reservoir sedimentation; flood (control) management, drainage, drought proofing, water logging and sea erosion problems; dam safety.
- 4) Regulation and development of inter-State rivers and river valleys, Implementation of Awards of Tribunals through Schemes, River Boards.
- 5) Water Laws, legislation.
- 6) Water quality assessment.
- 7) Cadre control and management of the Central Water Engineering Services (Group A).
- 8) International organizations, commissions and conferences relating to water resources development and management, drainage and flood control.
- 9) International Water Law.
- 10) Matters relating to rivers common to India and neighbouring countries; the Joint Rivers Commission with Bangladesh, the Indus Waters Treaty 1960; the Permanent Indus Commission.
- 11) Bilateral and external assistance and cooperation programmes in the field of water resources development

1.3 The above functions of Ministry of Water Resources are carried out through the following organizations/institutions of the Ministry:

## **ATTACHED OFFICES**

1. Central Water Commission
2. Central Soil & Materials Research Station

## **SUBORDINATE OFFICES**

1. Central Water & Power Research Station
2. Central Ground Water Board
3. Farakka Barrage Project
4. Ganga Flood Control Commission
5. Bansagar Control Board
6. Sardar Sarovar Construction Advisory Committee
7. Upper Yamuna River Board

## **STATUTORY BODIES**

1. Brahmaputra Board
2. Betwa River Board
3. Narmada Control Authority
4. Tungabhadra Board
5. Ravi and Beas Water Tribunal
6. Cauvery Water Disputes Tribunal
7. Krishna Water Disputes Tribunal

## **AUTONOMOUS BODIES (SOCIETIES)**

1. National Water Development Agency
2. National Institute of Hydrology

## **PUBLIC SECTOR UNDERTAKINGS**

1. Water and Power Consultancy Services (India) Limited
2. National Projects Construction Corporation Limited.

1.4 The Ministry, during 2009-10, implemented and monitored 15 central sector, and 5 state sector schemes. The following gives a brief overview of the Central Sector Schemes:

**1.4.1. Development of Water Resources Information System:** The objective of the scheme is to develop a water resources information system and make it fully operational at the earliest. The management of water resources is a highly complex task that involves multidisciplinary domains including data acquisition, numerical modelling, optimization, data warehousing, and the analysis of socio-economic, environmental and legal issues. In view of vital role of water in human life, there is a need for better design and optimal use of hydro-systems. In this context, a rational analysis must be based on an approach that considers all related causes and effects and systematically evaluates the various alternatives. The water resources information system plays a vital role in achieving optimal utilisation of the resources.



1.4.2. **Hydrology Project II:** The objective of the Hydrology Project, Phase-I (HP-I) was to improve institutional arrangements, technical capabilities and facilities for development of Hydrological Information System (HIS). As a follow up of HP-I, Hydrology Project Phase – II (HP-II) has been taken up with the objectives to extend and promote sustained and effective use of HIS by all potential users concerned with water resources planning and management, public and private, thereby contributing to improved productivity and cost – effective water related investments in 13 States and 8 Central Agencies, that are covered under the HP-II Project. This is a World Bank aided project.

1.4.3. **Investigation of Water Resources Development Scheme:** It comprises of two components e.g. “Investigation of River Link Proposals by NWDA” and “Investigation of Water Resources/ Multipurpose Schemes by CWC.” The objective of the scheme is to carry out the activities related to survey, field investigation, preparation of pre-feasibility/feasibility report (FRs) & details project report (DPRs) of various water resources development schemes including the schemes for Inter Basin transfer of Water and to carry out other studies and activities considered necessary incidental, supplementary or conducive to attainment of above objectives.

1.4.4. **Research and Development Programmes for Water Sector:** The objectives of the scheme are (i) to find practical solutions to the country’s water resources related problems and to improve available technology and engineering methods and procedures, particularly to take up research studies for improvement of the efficiency of the existing facilities, (ii) to create / upgrade research facilities of the premier organizations/institutions at National level to keep pace with the state-of-art technology, and (iii) to support research works to be taken up by the various institutions in water sector.

1.4.5. **National Water Academy:** This scheme will cover the activities related to training of water resources professionals from State and Central organizations in the area of water resources development, particularly integrated river basin planning and management.

1.4.6. **Information, Education and Communication:** The main objectives of the scheme are (i) to advocate the tenets of National Water Policy for adopting water efficient measures, (ii) to create awareness among the people about the need of using available water resources judiciously, (iii) to create awareness on necessity of adopting measures for rainwater harvesting and artificial recharge of ground water to meet present and future needs of water, (iv) to reinforce importance of traditional water bodies in maintaining water balance and meeting water needs of the population, (v) to make conservation of water a mass campaign and to impress upon the citizens the need of voluntarily adopting various water saving measures.

1.4.7. **River Basin Organizations/Authority:** The objective of the scheme is to provide a forum to all the co-basin states for taking up necessary studies, evaluation etc. for finding optimum method for development and utilization of water resources within that basin and meeting the aspirations of all stake-holders.

1.4.8. **Infrastructure Development :** This scheme pertains to the activities related to lands & buildings and IT development and specifically include the activities related to, (i) land and buildings of CWC, (ii) lands and buildings of CGWB, (iii) IT development of

MoWR and (iv) upgradation and modernization of computerization and information system of CWC.

1.4.9. **Dam Safety Studies & Planning:** The scheme envisages taking up of necessary studies related to Dam Safety and infrastructure strengthening of the Dam Safety Organization.

1.4.10. **Ground Water Management and Regulation:** The main objectives of the scheme are as follows:

- To carry out ground water management studies;
- To carry out ground water exploration aided by drilling to delineate ground water worthy areas;
- To periodically assess country's ground water resources and revise / update the methodology;
- To monitor ground water levels and quality through ground water observation wells;
- To carry out demonstrative artificial recharge and rain water harvesting studies to develop / update area specific methodologies;
- To establish / update data storage and information system to store, process and disseminate ground water data;
- To regulate and control ground water development in coordination with State Governments;
- To carry out geophysical studies through surface and sub-surface methods to delineate potential aquifers and pinpoint suitable sites for ground water exploration, artificial recharge etc;
- To coordinate with State governments with a view to establish benchmark methodologies for ground water studies;
- To promote awareness and water quality consciousness;
- To develop linkages with Scientific institutions on aspects of ground water saving and sharing;
- To assess ground water quality for determining their suitability for various types of uses including use for agriculture, industrial and allied purposes;
- To prepare reports, maps, ground water atlases and brochures for use by planners and administrators and

1.4.11. **Rajiv Gandhi Institute of Training and Research:** This scheme covers the activities to provide a base for organizing and upgrading the knowledge and skills of ground water professional in planning, investigation, development, management, augmentation, conservation and protection of ground water resources.

1.4.12. **Pagaladiya Dam Project:** The main objective of the scheme is the construction of dam and canal system to protect an area of 40000 ha in Nalbari area of Assam from recurring floods from the river Pagladiya and to provide irrigation to a gross command area of 54,160 ha annually (average). The project is also to generate 3 MW of hydro-electricity from release of water from canal as incidental benefit. The works for Pagladiya Dam project are held up due to non-completion of Zirat Survey and land acquisition by the State Government.

1.4.13. **Flood Forecasting:** The objective of the scheme is to strengthen and improve the flood forecasting and inflow forecasting network in India and develop forecast information system.

1.4.14. **River Management Activities in Border Areas:** In view of the international issues involved in international rivers, under the scheme river management activities are taken up on priority in a systematic manner which include hydrological observation, investigation and necessary flood control measures in cooperation with neighboring countries wherever necessary.

1.4.15. **Farakka Barrage Project:** The main objective of the Farakka Barrage Project is operation and maintenance of Farakka Barrage and associated structures including anti-erosion measures for safety of barrage.

**CHAPTER - II**

**Statement of Outlays & Outcomes / Targets : Annual Plan 2010-11**

						<b>(Rs. in Crore)</b>		
<b>Sl. No.</b>	<b>Name of Scheme / Programme</b>	<b>Objective / Outcomes</b>	<b>Plan Budget</b>	<b>Compensatory Extra-Budgetary Resources</b>	<b>Quantifiable Deliverables / Physical Outputs</b>	<b>Projected outcomes</b>	<b>Process / Timelines</b>	<b>Remarks</b>
<b>1</b>	<b>2</b>	<b>3</b>	<b>4(i)</b>	<b>4(ii)</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>
1	Development of Water Resources Information System	(a) Creation of Watershed Atlas and development of web enabled Water Resource Information System of the country at 1:50000 scale. (b) To provide support to Water Quality Assessment Authority and implement identified studies / programme for water quality assessment (c) To develop snow melt run off model for Yamuna & Chenab basin of assesemnt of snow melt contribution in the river below for efficient water managment and optimum utilisation particularly during lean season. (d) Collection and publication of Water Quality data , (e)To collect data from network of hydrological observation stations for overall assessment of water resources and analysis of their characteristics (f) Monitoring of selected ongoing Major, Medium & ERM irrigation projects throughout the country including AIBP and CAD projects. (g) Fourth Minor Irrigation Census	<b>66.00</b>	<b>0.00</b>	(a)The Water Resources Information System(WRIS) website will be expanded/updated further with 30 GIS layers. (b) Observation of data for 878 hydrological observation sites and collection of other water related data to continue. (c) Long term data collection at snow observatories, G&D sites and development of snow melt runoff models. (d) Number of visits to projects for monitoring purposes (e)Collection of field data for fourth Minor Irrigation Census 4th and processing of the same will be completed.	(a) Preparation of Basin-wise Water Year Book (b) Collection of field data for fourth Minor Irrigation Census and completion of the processing of the same. (c) Expansion/updaton of website for WRIS.	Activities to continue throughout the year.	
2	Hydrology Project Phase-II	To extend and promote the sustained and effective use of the Hydrological Information System by all implementening users concerned with water resources planning and management in 13 states and 8 Central Agencies	<b>53.00</b>	<b>0.00</b>	Implementation of the project components, i.e. institutional strengthening, vertical extension (with Hydrological Design Aids,DSS- Planning, DSS-Real Time and 31 Purpose driven Studies) and horizontal expansion including PDS in new States,with support of 4 major consultancies in place in Hydrology Project Phase-II.	(a) Improved data accessibility for exchange among implementing Agencies (b)Improved tools for integrated water resource planning and management (c) Improved data system and tools for management of flood and drought	Project would be implemented through the central agencies namely MoWR, BBMB, CWC, CGWB, NIH, CWPRS, CPCB, and IMD till June 2012	

3	Ground Water Management and Regulation	(a) Ground Water Management Studies to prepare ground water management plan (b) Ground Water exploration utilizing scientific tools viz. Remote sensing and GIS, Geophysical surveys aided by drilling to locate ground water worthy areas. (c) Monitoring of ground water levels from Ground water monitoring stations (d) Short term water supply investigations for source finding to Central/ State Govt deptt., (e) Preparation of Reports, Maps for use by planners and administrators. (f) Artificial recharge studies including construction of Artificial recharge structures. (g) Regulation of Ground water development byCGWA.	100.00	0.00	(a) Ground Water Management studies- 1.50 lakh Sq.Km. (b) Ground Water Exploration- 800 wells (c) Geophysical survey: VES- 2000, Well Logging- Need Based. (d) Ground Water Monitoring- 15,640 Ground Water Observation wells, Hydrochemical analysis to assess ground water quality-20,000 samples. (e) Short Term water supply investigations- Need Based . (f) Preparation of 40 District Hydrological Report, 23 Ground Water Year Book & 6 State Reports (g) Demonstrative projects for Artificial Recharge to ground water in identified thrust areas	To facilitate scientific ground water development and management in identified thrust areas using the data collected through various activities listed.	One year, except for Artificial recharge studies which continue for 2-3 years.	
4	Investigation of Water Resources Development Schemes	To carry out the activities related to survey, field investigation, preparation of prefeasibility / feasibility report & Detailed Project Report of various Water Resources Development schemes including the schemes for Interbasin transfer of Water and to carry out other studies and activities considered incidental, supplementary or conducive to attainment of above objectives	54.00	0.00	(a) Survey & Investigations for Preparation of Feasibility Reports of Bedti - Varada link, Manas - Sankosh - Tista - Ganga (M - S - T -G), Jogighopa - Teesta - Farakka (Alternative to M-S-T-G), Kosi - Meehi link, Kosi - Ghagra link, Gandak - Ganga link, and Netravati - Hemavati (b) Consensus building process amongst the concerned States for preparation of detailed Project Report of Parbati-Kalisindh-Chambal link and Mahanadi - Godavari - Krishna - Pennar - Cauvery - Vaigai - Gundar links system. (c) Survey & investigation and preparation of detailed project report of (i) Par - Tapi - Narmada link & damanganga - Pinjal link (ii) Parbati - Kaisindh - Chambal link (d) Preparation of pre-feasibility reports of Intra - State link proposals, as proposed by State Govts. (e) Post DPR stage work of Ken - Betwa link	(a) Feasibility report of 5 links (b) DPR of one project	Effort to be made for consensus amongst the concerned States for preparation of DPR. Preparation of DPR to continue.	
5	Research & Development programme in Water Sector	The scheme comprises of various activities related to R&D and training in the water resources. sector These activities are being implemented by the premier research Institutes in the field of hydrology, hydraulics, soil and material sciences, i.e. NIH, CW&PRS and CSMRS and CWC. The outcomes of the programme will be improvement in efficiency of irrigation system, reduction in risk/hazard in water resources project, economic design for project and development of new / improved technology	54.00	0.00	The implementation of the scheme will help in capacity building and creation of additional facilities. The research output are generally in terms of technical report & research papers having recommendations for improved techniques for planning & design. Quantifiable deliverables are: (a) Research Reports = 295 (b) Research Papers = 250 (c) Training workshops = 30	(a) Finalization of 545 reports / research papers and (b) Organization of 30 training programmes	Works to be implemented by various organisations of the Ministry.	
6	National Water Academy	Training for in service Engineers / Induction Engineers in Water Resources Planning, Development and Management	4.00	0.00	35 Training Programmes.	35 training Programmes to be completed by March 2011.		
7	Rajiv Gandhi National Ground Water Training and Research Institute	Training of officers and staff of CGWB and other Central / State Government organisation on Ground Water aspects	6.00	0.00	19 Training Programmes	19 training Programmes to be completed by March 2011.		

8	Information Education and Communication	To create awareness amongst the masses about the importance of water and need of its conservation	15.00	0.00	(a) Publicity through electronic media (b) organizing and participating in workshops/seminars (c) Publicity through Print media including periodic advertisements in newspapers, magazines etc. (d) Organising exhibitions in prominent places frequently visited viz. Pragati Maidan etc. (e) Production of documentaries, short films, audio/video spots (f) Celebration of special days viz. World Water Day.	The activities will lead to greater mass awareness about Water Resources Sector, particularly on water conservation and water harvesting.	Activities to be organized throughout the year	
9	Pagladiya Dam Project	Flood Control, Irrigation and Ancillary Power Generation	0.50	0.00	Only token provision has been made for under taking preconstruction activities after completion of Zirat survey.		Activities to be implemented by brahmaputra Board	Token provision
10	Farakka Barrage Project	(a) Maintenance of Farakka Barrage Project and its appurtenant structures including feeder canal, Jangipur barrage etc. (b) Anti-erosion works for protection of embankments along river Ganga and its tributaries to train the river along main barrage.	82.00	0.00	(a) Maintenance of Farakka Barrage Project and its appurtenant structures including feeder canal, Jangipur barrage etc. which is a continuing activity and procurement of spare gates etc.. (b) Erosion control works in the extended jurisdiction of FBP from 40 km u/s to 80 km d/s of Farakka Barrage along the river Ganga-Padma will be undertaken.	Operation of Farakka and Jangipur Barrages/gates are ongoing activities. Erosion control works would save land, crops, buildings etc along the river banks which get eroded every year due to high floods. Besides ongoing works, 5 new anti-erosion works have been recommended by TAC to be carried out during 2010-11.	The identified activities to be implemented by farakka Barrage Project. Activities to continue throughout the year.	
11	Dam Safety Studies and Planning	(a) Studies on various aspects of dam safety (b) Preparation and digitisation of generalized PMP atlases for Indus and Krishna Basins and Ganga & Brahmaputra basins and upgradation of Atlases prepared under DSARP (c) Setting up of Instrumentation Demonstration Centre (d) Training and Development of special propose packages on Dam Safety.	1.50	0.00	(a) Procurement of Models/Fixtures for instrumentation Demonstration Centre (b) Preparation and digitization of Generalized PMP Atlases. Consultants for Ganga Basin Brahmaputra Basin and Updation of PMP Atlases			
12	River Basin Organisation / Authority		0.50	0.00	Matter to be pursued with State Governments. Only token provision has been made for initiating the activities after seeking consent of State Governments		The out put depend upon consent of State Governments.	Token provision
13	Flood Forecasting	To maintain the network of hydrological observation sites across the country by Central Water Commission covering 20 river basins to provide timely flood forecasts at 175 stations to the local administration.	36.00	0.00	To collect of real time data, its analysis and issue of flood forecasts. About 6000 forecasts are issued every year.	Advance warning of the incoming flood to help in planning activities for reducing the damages from floods. Installation of 99 telemetry stations is programmed during 2010-11.	The work will be implemented by Central Water Commission during the year 2010-11.	

14	River Management Activities and Work Related to Border Areas	Hydrological observations and investigations of Water Resources Projects with neighboring countries besides river management works on common/border rivers. Flood control, Anti-erosion & Drainage development works by Brahmaputra Board. Maintenance of flood protection works of Kosi and Gandak Projects (in Nepal).	199.00	0.00	(i) Continuation of joint Hydrological observations on river Ganga with Bangladesh, and (ii) Preparation of Joint Detail Project Report (DPR)* (iii) Antierosion & Flood protection works of Majauli Island. (iv) Transmission of flood related data from/to neighboring countries. (v) Development works on common/border rivers.	Mitigating the recurring flood problems. Bank protection works in Indo-Bangladesh border would be carried out on 20 sites in 2010-11. These works are in Tripura and West Bengal Sectors.	It would be implemented by CWC, GFCC, Brahmaputra Board and State Governments of Bihar, Uttar Pradesh, Tripura, West Bengal & Jammu & Kashmir.	*The progress of works in Nepalese territory will depend upon cooperation from Nepal
15	Infrastructure Development	To procure land and building for Ministry of Water Resources and its attached / subordinate offices and implementation of IT Plan in MoWR, CWC and CGWB	28.50	0.00	(a) Construction of offices and residential buildings for CWC and CGWB and other activities. (b) Procurement of hardware, software and development of unified web enabled information and management system for, CWC, CGWB and Ministry (proper).	These activities will lead to qualitative enhancement in working environment thereby increase in working efficiencies.	Activities to be implemented by CWC, CGWB and other organizations of MoWR	
16	Command Area Development and Water Management Programme	To develop adequate delivery system of irrigation water upto farmers fields with an objective to enhance water use efficiency and production and productivity of crop per unit of land and water for improving socio-economic conditions of farmers.	*499.00	0.00	(a) OFD works (Field channels & Land levelling, shaping & realignment of field boundaries) in 3.5 lakhs hectares of CCA (b) Field, intermediate and link drains in 1.4 lakh hectares of CCA (c) Correction of system deficiencies in systems of capacity up to 4.25 cumec covering 0.26 lakh hectare of CCA	To bridge the gap between created potential and potential utilized	Progress to depend on proposals to be received from States and utilization of the funds by States in time	
17	Accelerated Irrigation Benefit Programme	To complete on-going irrigation/multi-purpose project in advanced stage of construction and which are beyond the resources capability of State Government in a time bound manner with a view to (a) create additional irrigation potential and (b) derive envisaged benefits from these projects.	9200.00	0.00	To create additional irrigation potential of 9.5 lakh hectare with the projects supported under AIBP and completion of 15 Major, Medium and ERM Irrigation projects and 800 Minor Irrigation schemes	(a) Creation of 7.5 lakh ha irrigation potential in AIBP assisted major and medium irrigation projects. (b) Creation of 2.0 lakh ha irrigation potential in AIBP assisted minor irrigation schemes.	Progress to depend on proposals to be received from States and utilization of the funds by States in time	
18	Repair, Renovation and Restoration of Water Bodies	Restore and augment the capacity of water bodies to recover and expand their irrigation potential improvement of agriculture / horticulture productivity	600.00	0.00	(a) The works in respect of World bank assisted projects in Tamil Nadu, Andhra Pradesh, Karnataka and Orissa to continue and assistance to be provided to various States under scheme with Domestic support (b) Evaluation of the performance of the scheme as and when completed	Works in respect of 1500 water bodies to be fully completed	Progress to depend on proposals to be received from States and utilization of the funds by States in time	
19	Dam Rehabilitation and Improvement Programme		1.00	0.00			This is an externally aided scheme and would be implemented after agreement with the World Bank.	Token provision

20	Flood Management Programme	To provide financial assistance to various state governments for river management, flood control, anti-erosion, drainage development, flood proofing works in the critical areas in the country	1199.00	0.00	(a) River management works in critical areas. (b) Anti-erosion works, drainage improvement works, etc. as suggest by Task-force-2004 on Food Management and Erosion Control in respect of Ganga and Brahmaputra Basin states. (c) Coastal erosion works in maritime states. (d) De-silting/dedging of river section in the selected reaches.	(b) The activity will help in reducing damages due to flood, river-bank erosion and coastal erosion. (b) 150 FMP assisted flood management works to be completed.	Progress to depend on proposals to be received from States and utilization of the funds by States in time	The expenditure trend will depend on utilisation of funds released earlier, by the states.
	<b>Total</b>		<b>12199.00</b>	0.00				
	*Rs.1.00 crore for proposed new scheme on Ground Water.							



## CHAPTER – III

### REFORM MEASURES AND POLICY INITIATIVES

3.1 During the year 2009-10, for resolving inter-state water disputes, the following tribunals were setup.

- (a) Vansadhara River Water Disputes Tribunal has been constituted to adjudicate the Vansadhara River Water Disputes between the States of Orissa and Andhra Pradesh.
- (b) The Government has approved the proposal to constitute a tribunal to adjudicate the Mahadayi River Water Disputes among the States of Karnataka, Goa and Maharashtra on 10.12.09.

3.2 Action has been initiated for the enactment of Dam Safety Act which would lay down the procedures for proper surveillance, inspection, operation and maintenance of the dams in the country.

3.3 A Memorandum of Understanding between the Government of India and Government of Australia on Cooperation in the field of Water Resources Management was signed on 10<sup>th</sup> November 2009, which has validity of 5 years.

3.4 The 5<sup>th</sup> Asian Regional Conference and the 60<sup>th</sup> International Executive Council Meeting of the International Commission on Irrigation and Drainage was organized at New Delhi. The theme of the Asian Regional Conference was “Improvement in Efficiency of Irrigation Projects through Technology Upgradation and Better Operation and Maintenance.”

3.5 A Secretary Level Meeting to discuss the common issues between India and Bangladesh was held and agreement signed to carry out bank protection works on common border rivers namely Nagar, Punarbhaba, Atrai, Mahananda, Karatoya, Feni, Kulik and Dhalai on both sides. Government of Bangladesh also agreed to cooperate in execution of dredging work on common border in Ichhamati river and to execute drinking water supply schemes for Subroom town of Tripura immediately with mutual cooperation.

3.6 Inter Linking of rivers programme

The proposal for the modification of the functions of NWDA Society to include the work of preparation of Detailed Project Reports of the Intra State links has been accepted by the NWDA Society. This would now be taken to the EFC and the Cabinet for approval.

## **CHAPTER - IV**

### **REVIEW OF PAST PERFORMANCE**

4.1 The relevant information regarding performance during 2008-09 and 2009-10 against the targets already set are given at **Annexure-I** and **Annexure - II**.

4.2 There is one flagship programme of this Ministry namely, 'Accelerated Irrigation Benefits Programme' details of which are given at **Annexure-III**.

## CHAPTER - V

### OVERALL FINANCIAL REVIEW

5.1 The details of Ministry of Water Resources Budget (the scheme wise allocation of funds vis-a-vis expenditure trend) including XI plan outlay is shown in **Annexure – IV**.

#### **TREND OF EXPENDITURE IN FY 2009- 10:**

5.2 Budget Estimate for the annual plan of this Ministry for the year 2009-10 is Rs. 600.00 crores which was reduced to Rs. 540.00 crores by the Ministry of Finance at RE stage. As per the expenditure details received from the Office of Controller of Accounts, an expenditure of Rs.372.52crores has been incurred upto January 2010 which works out to 62.09% and 68.99% with reference to B.E and R.E 09-10 respectively.

5.3 The grant of Ministry of Water Resources for FY 09-10 is classified into four Sectors. The Sector-wise distribution of approved plan outlay (both BE/RE) and expenditure up to January, 2010 under different Sectors are summarized below:

<b>(Rs in crore)</b>			
<b>Sector</b>	<b>B.E. 2009-10</b>	<b>R.E. 2009-10</b>	<b>Exp. Upto January, 2010</b>
Major & Medium Irrigation	219.20	189.20	130.28
Minor Irrigation	76.00	76.50	51.81
Flood Control	234.80	204.30	127.16
Transport Sector	70.00	70.00	60.60
Entry Awaited Transfer	0.00	0.00	2.67
<b>Total</b>	<b>600.00</b>	<b>540.00</b>	<b>372.52</b>

#### **Budget at a Glance**

5.4 In the water resources sector, the central budget enables the Ministry of Water Resources and its associate organizations to play an overall guiding and coordinating role in relation to schemes, projects and programmes which are essentially implemented in the states/UTs. The Farakka Barrage Project is the only project which is primarily a navigation project, but is under this ministry because in terms of the skills and disciplines involved, it is similar to other hydraulic projects within the ambit of this ministry. In relation to water resources development, the role of the Ministry is one of planning, guidance, policy formulation and assistance.

5.5 Since 'Water' is a state subject, the role of central government in implementing the programmes is essentially of a catalytic nature. The budget of the central government is, thus, supplemented by funds provided in the budgets of various state governments.

5.6 The following plan schemes are being implemented by the Ministry:

**Central Sector**

1. Development of Water Resources Information System
2. Hydrology Project
3. Investigation of Water Resources Development
4. Research & Development Programme
5. National Water Academy
6. Information, Education and Communication
7. Dam Safety Studies and Planning
8. River Basin Organisation/Authority
9. Ground Water Management and Regulation
10. Rajiv Gandhi NGWT&RI
11. Flood Forecasting
12. River Management Activities and works related to Border Rivers
13. Pagladia Dam Project
14. Infrastructure Development
15. Farakka Barrage Project

**State Sector Schemes**

16. Accelerated Irrigation Benefit Programme
17. Repair, Renovation and Restoration of Water Bodies
18. Dam Rehabilitation and Improvement Programme
19. Flood Management Programme
20. Command Area Development Programme

5.7 A comparative table showing Budget allocated and expended for last 2 years is explained in Tables A & B. The budget of the Ministry is explained in terms of allocation of funds among various sectors (Table A) and the manner in which the expenditure of the Ministry is incurred (Table B).

5.8 Details regarding outstanding utilization certificates are given in Table C.

**TABLE - A**  
**BUDGET AT A GLANCE**  
**(SECTOR-WISE)**

(Rupees in crore)

Sl No.	Sector/ Organisation /Scheme	Actuals 2008-09		BE 2009-10		RE 2009-10		BE 2010-11		Total B.E. 2010-11
		Plan	Non-Plan	Plan	Non-Plan	Plan	Non-Plan	Plan	Non-Plan	
1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
<b>I</b>	<b>Secretariat- Economic Services</b>									
1.	Ministry of Water Resources (prop.)	0.00	21.74	0.00	21.00	0.00	29.16	0.00	24.52	24.52
2.	Ravi-Beas Waters Tribunal	0.00	0.82	0.00	0.80	0.00	1.09	0.00	1.04	1.04
3.	Cauvery Water Disputes Tribunal	0.00	1.41	0.00	1.60	0.00	2.31	0.00	1.93	1.93
4.	Krishna Water Disputes Tribunal	0.00	1.45	0.00	1.40	0.00	1.80	0.00	1.76	1.76
5.	Vansadhara Water Dispute Tribunal	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.00	2.00
	<b>Total :</b>	<b>0.00</b>	<b>25.42</b>	<b>0.00</b>	<b>24.80</b>	<b>0.00</b>	<b>34.36</b>	<b>0.00</b>	<b>31.25</b>	<b>31.25</b>
	<b>Secretariat- Economic Services</b>									
<b>II</b>	<b>Major &amp; Medium Irrigation</b>									
	<b>Central Water Commission</b>									
1.	Direction & Administration	0.00	20.05	0.00	23.00	0.00	25.24	0.00	20.90	20.90
2.	Data Collection	0.00	65.42	0.00	69.22	0.00	74.21	0.00	65.13	65.13
3.	Training	0.00	0.49	0.00	0.65	0.00	0.39	0.00	0.32	0.32
4.	Research	0.00	1.33	0.00	1.60	0.00	2.78	0.00	1.84	1.84
5.	Survey & Investigation	0.00	7.74	0.00	4.50	0.00	6.21	0.00	5.03	5.03
6.	Consultancy	0.00	20.75	0.00	20.00	0.00	23.70	0.00	18.84	18.84
7.	Contribution to international bodies	}	0.00	0.00	0.01	0.00	0.02	0.00	0.01	0.01
8.	Seminars and conferences on water resources on water.									
9.	Exhibition and Trade Fair	0.00	0.18	0.00	0.30	0.00	0.15	0.00	0.01	0.01
10.	Modernization of equipment	0.00	0.23	0.00	0.35	0.00	0.33	0.00	0.24	0.24

Sl No.	Sector/ Organisation /Scheme	Actuals 2008-09		BE 2009-10		RE 2009-10		BE 2010-11		Total B.E. 2010-11
		Plan	Non-Plan	Plan	Non-Plan	Plan	Non-Plan	Plan	Non-Plan	
1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
11.	CWC Offset Press Cell for monitoring externally aided projects	0.00	0.50	0.00	0.60	0.00	0.60	0.00	0.65	0.65
12.	Water Planning Wing	0.00	1.13	0.00	1.40	0.00	1.28	0.00	1.06	1.06
13.	Hydrological observations in Chenab basin	0.00	1.61	0.00	1.60	0.00	2.05	0.00	1.69	1.69
14.	National Water Academy	2.37	0.00	2.60	0.00	2.60	0.00	4.00	0.00	4.00
	<b>Total : CWC</b>	<b>2.37</b>	<b>119.44</b>	<b>2.60</b>	<b>123.23</b>	<b>2.60</b>	<b>136.96</b>	<b>4.00</b>	<b>115.72</b>	<b>119.72</b>
15.	Central Soil and Materials Research Station	0.00	5.99	0.00	5.00	0.00	7.72	0.00	5.92	5.92
16.	Central Water & Power Research Station	0.00	28.26	0.00	25.00	0.00	36.26	0.00	25.47	25.47
17.	National Institute of Hydrology	0.00	6.86	0.00	5.30	0.00	10.29	0.00	6.50	6.50
18.	Sardar Sarovar Construction Advisory Committee	0.00	0.58	0.00	0.90	0.00	0.89	0.00	0.63	0.63
19.	Bansagar Control Board	0.00	0.15	0.00	0.23	0.00	0.22	0.00	0.20	0.20
20.	Sutlej Yamuna Link Canal Project	0.00	0.00	0.00	22.00	0.00	6.18	0.00	20.00	20.00
21.	Upper Yamuna River Board	0.00	0.90	0.00	1.84	0.00	0.85	0.00	1.82	1.82
22.	Research and Development Programme	39.81	0.00	52.00	0.00	35.00	0.00	54.00	0.00	54.00
23.	Development of Water Resources Information System	45.58	0.00	70.00	0.00	70.00	0.00	66.00	0.00	66.00
24.	Hydrology Project	9.92	0.00	38.10	0.00	25.10	0.00	53.00	0.00	53.00
25.	Investigation of Water Resources Development Schemes	36.17	0.00	42.00	0.00	42.00	0.00	54.00	0.00	54.00
26.	Information, Education and Communication	9.08	0.00	12.00	0.00	12.00	0.00	15.00	0.00	15.00
27.	River Basin Organization/ Authority	0.00	0.00	0.50	0.00	0.50	0.00	0.50	0.00	0.50
28.	Dam Safety	0.80	0.00	1.00	0.00	1.00	0.00	1.50	0.00	1.50

Sl No.	Sector/ Organisation /Scheme	Actuals 2008-09		BE 2009-10		RE 2009-10		BE 2010-11		Total B.E. 2010-11
		Plan	Non-Plan	Plan	Non-Plan	Plan	Non-Plan	Plan	Non-Plan	
1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
29.	Studies and Planning									
	Infrastructure Development	2.06	0.00	1.00	0.00	1.00	0.00	3.00	0.00	3.00
30.	National Projects	0.00	0.00	0.00	0.01	0.00	0.01	0.00	0.00	0.00
	Construction Corporation Limited									
	<b>Total: Major &amp; Medium Irrigation</b>	<b>145.79</b>	<b>162.18</b>	<b>219.20</b>	<b>183.51</b>	<b>189.20</b>	<b>199.38</b>	<b>251.00</b>	<b>176.26</b>	<b>427.26</b>
<b>III</b>	<b>Minor Irrigation</b>									
1.	Central Ground Water Board	0.00	85.53	0.00	94.99	0.00	111.27	0.00	98.31	98.31
2.	Rajiv Gandhi NGWTRI	0.64	0.00	2.00	0.00	2.00	0.00	6.00	0.00	6.00
3.	Ground Water Management and Regulation	54.37	0.00	70.00	0.00	70.00	0.00	100.00	0.00	100.00
6.	Infrastructure Development	2.07	0.00	4.50	0.00	4.50	0.00	10.50	0.00	10.50
	<b>Total : Minor Irrigation</b>	<b>57.08</b>	<b>85.53</b>	<b>76.50</b>	<b>94.99</b>	<b>76.50</b>	<b>111.27</b>	<b>116.50</b>	<b>98.31</b>	<b>214.81</b>
<b>IV</b>	<b>Flood Control</b>									
	<b>Central Water Commission</b>									
1.	Flood Data Collection	0.00	51.70	0.00	55.00	0.00	59.98	0.00	53.77	53.77
2.	Payment to Government of Bhutan for maintenance of flood forecasting and warning centres	0.00	1.02	0.00	1.20	0.00	1.06	0.00	1.02	1.02
3.	Strengthening and modernization of flood forecasting and hydrological network in Brahmaputra and Barak Basin	0.00	1.96	0.00	2.25	0.00	1.95	0.00	1.95	1.95
	<b>Total : CWC</b>	<b>0.00</b>	<b>54.68</b>	<b>0.00</b>	<b>58.45</b>	<b>0.00</b>	<b>62.99</b>	<b>0.00</b>	<b>56.74</b>	<b>56.74</b>
4.	Emergent Flood Protection Measures in Eastern and Western Sectors	0.00	0.00	0.00	3.00	0.00	3.00	0.00	3.00	3.00

Sl No.	Sector/ Organisation /Scheme	Actuals 2008-09		BE 2009-10		RE 2009-10		BE 2010-11		Total B.E. 2010-11
		Plan	Non-Plan	Plan	Non-Plan	Plan	Non-Plan	Plan	Non-Plan	
1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
5.	Pagladia Dam Project	0.00	0.00	0.50	0.00	0.50	0.00	0.50	0.00	0.50
6.	Flood Forecasting	13.68	0.00	25.00	0.00	20.00	0.00	36.00	0.00	36.00
7.	River Management Activities and Works related to Border Areas	176.09	0.00	199.30	0.00	174.30	0.00	199.00	0.00	199.00
8.	Infrastructure Development	6.56	0.00	9.50	0.00	9.50	0.00	15.00	0.00	14.00
	<b>Total : Flood Control</b>	<b>196.33</b>	<b>54.68</b>	<b>234.30</b>	<b>61.45</b>	<b>204.30</b>	<b>65.99</b>	<b>250.50</b>	<b>59.74</b>	<b>310.24</b>
<b>V.</b>	<b>Other Transport Services</b>									
1.	Farakka Barrage Project	54.03	25.89	70.00	32.00	70.00	28.30	82.00	33.10	115.10
2.	Jangipur Barrage	0.00	1.90	0.00	2.25	0.00	1.89	0.00	2.27	2.27
3.	Feeder Canal	0.00	3.78	0.00	4.00	0.00	3.81	0.00	4.07	4.07
	<b>Total : Transport Services</b>	<b>54.03</b>	<b>31.57</b>	<b>70.00</b>	<b>38.25</b>	<b>70.00</b>	<b>34.00</b>	<b>82.00</b>	<b>39.44</b>	<b>121.44</b>
	<b>TOTAL (I to V) *</b>	<b>453.23</b>	<b>359.38</b>	<b>600.00</b>	<b>403.00</b>	<b>540.00</b>	<b>445.00</b>	<b>700.00</b>	<b>405.00</b>	<b>1105.00</b>
<b>VI</b>	<b>AIBP and other Water Resources Programme **</b>	<b>8553.70</b>	<b>0.00</b>	<b>9700.00</b>	<b>0.00</b>	<b>9700</b>	<b>0.00</b>	<b>11500.00</b>	<b>0.00</b>	<b>11500</b>
	<b>GRAND TOTAL</b>	<b>9006.93</b>	<b>359.38</b>	<b>10300.00</b>	<b>403.00</b>	<b>10240.00</b>	<b>445.00</b>	<b>12200.00</b>	<b>405.00</b>	<b>12605.00</b>

Source of financing : \*Demand No.103 – Ministry of Water Resources for 2010-2011 (excluding AIBP)

\*\* Details shown in Demand No. 35- Ministry of Finance (Transfers to State and Union Territory Governments).



**TABLE - B**  
**BUDGET AT A GLANCE**  
**(TYPE OF EXPENDITURE )**

(Rupees in crore)

Sl. No	Sector/Organisation/Scheme	Actuals 2008-09		B.E. 2009-10		R.E. 2009-10		B.E. 2010-11		Total
		Plan	Non-Plan	Plan	Non-Plan	Plan	Non-Plan	Plan	Non-Plan	
1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
<b>A.</b>	<b>DIRECT EXPENDITURE</b>									
1.	Secretariat-Economic Services	0.00	25.42	0.00	24.80	0.00	34.36	0.00	31.25	31.25
2.	Central Water Commission: -Major & Medium Irrigation -Flood Control	2.37	119.44	2.60	123.23	2.60	136.96	4.00	115.72	119.72
3.	Central Soil & Materials Research Station	0.00	5.99	0.00	5.00	0.00	7.72	0.00	5.92	5.92
4.	Central Water & Power Research Station	0.00	28.26	0.00	25.00	0.00	36.26	0.00	25.47	25.47
5.	Central Ground Water Board	0.00	85.53	0.00	94.99	0.00	111.27	0.00	98.30	98.31
6.	Rajiv Gandhi & NGWTRI	0.64	0.00	2.00	0.00	2.00	0.00	6.00	0.00	6.00
7.	Farakka Barrage Project	54.03	31.57	70.00	38.25	70.00	34.00	82.00	39.44	121.44
8.	Boards and Committees	0.00	1.63	0.00	2.97	0.00	1.96	0.00	2.66	2.66
9.	National Projects Construction Corporation Limited	0.00	0.00	0.00	0.01	0.00	0.01	0.00	0.00	0.00
	<b>Total : Direct Expenditure</b>	<b>57.04</b>	<b>352.52</b>	<b>74.60</b>	<b>372.70</b>	<b>74.60</b>	<b>425.53</b>	<b>92.00</b>	<b>375.50</b>	<b>467.50</b>
<b>B.</b>	<b>RELEASES</b>									
<b>(a)</b>	<b>Grants to Autonomous Bodies</b>									
1.	National Institute of Hydrology Research & Development Programme	0.00	6.86	0.00	5.30	0.00	10.29	0.00	6.50	6.50
2.	-Major and Medium Irrigation	39.81	0.00	52.00	0.00	35.00	0.00	54.00	0.00	54.00
3.	Pagladia Dam Project	0.00	0.00	0.50	0.00	0.50	0.00	0.50	0.00	0.50
	<b>Sub-Total (a) Grants to Autonomous Bodies</b>	<b>39.81</b>	<b>6.86</b>	<b>52.50</b>	<b>5.30</b>	<b>35.50</b>	<b>10.29</b>	<b>54.50</b>	<b>6.50</b>	<b>61.00</b>
<b>(b)</b>	<b>Assistance to States for Flood Control/anti-erosion works</b>									
1.	Emergent Flood Protection measures in Eastern and Western Sectors	0.00	0.00	0.00	3.00	0.00	3.00	0.00	3.00	3.00
	<b>Sub-Total(b : Assistance to States for flood control/anti- erosion works</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>3.00</b>	<b>0.00</b>	<b>3.00</b>	<b>0.00</b>	<b>3.00</b>	<b>3.00</b>
<b>(c)</b>	<b>State Irrigation Schemes</b>									
1.	Sutlej Yamuna Link Canal Project	0.00	0.00	0.00	22.00	0.00	6.18	0.00	20.00	20.00
	TOTAL: RELEASES (a) to (c)	39.81	6.86	52.50	30.30	35.50	19.47	54.50	29.50	75.00
	<b>Total (A+B)*</b>	<b>96.85</b>	<b>359.39</b>	<b>127.10</b>	<b>403.00</b>	<b>110.10</b>	<b>445.00</b>	<b>146.50</b>	<b>405.00</b>	<b>551.50</b>
<b>C</b>	<b>OTHER PLAN SCHEMES</b>									
	<b>Major &amp; Medium Irrigations</b>									
1.	Development of Water Resources Information System	45.59	0.00	70.00	0.00	70.00	0.00	66.00	0.00	66.00
2.	Hydrology Project	9.92	0.00	38.10	0.00	25.10	0.00	53.00	0.00	53.00
3.	Investigation of Water Resources Development	36.17	0.00	42.00	0.00	42.00	0.00	54.00	0.00	54.00

Sl. No	Sector/Organisation/Scheme	Actuals 2008-09		B.E. 2009-10		R.E. 2009-10		B.E. 2010-11		Total
		Plan	Non-Plan	Plan	Non-Plan	Plan	Non-Plan	Plan	Non-Plan	
1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
4.	Schemes Information, Education and Communication	9.08	0.00	12.00	0.00	12.00	0.00	15.00	0.00	15.00
5.	River Basin Organization/ Authority	0.00	0.00	0.50	0.00	0.50	0.00	0.50	0.00	0.50
6.	Dam Safety Studies and Planning	0.80	0.00	1.00	0.00	1.00	0.00	1.50	0.00	1.50
7.	Infrastructure Development	2.06	0.00	1.00	0.00	1.00	0.00	3.00	0.00	3.00
	<b>Total - MMI</b>	<b>103.61</b>	<b>0.00</b>	<b>164.60</b>	<b>0.00</b>	<b>151.60</b>	<b>0.00</b>	<b>193.00</b>	<b>0.00</b>	<b>193.00</b>
	<b>Minor Irrigation</b>									
1.	Ground Water Management and Regulation	54.37	0.00	70.00	0.00	70.00	0.00	100.00	0.00	100.00
2.	Infrastructure Development	2.07	0.00	4.50	0.00	4.50	0.00	10.50	0.00	10.50
	<b>Total – MI</b>	<b>56.44</b>	<b>0.00</b>	<b>74.50</b>	<b>0.00</b>	<b>81.50</b>	<b>0.00</b>	<b>110.50</b>	<b>0.00</b>	<b>110.50</b>
	<b>Flood Control</b>									
1.	Flood Forecasting	13.68	0.00	25.00	0.00	20.00	0.00	36.00	0.00	36.00
2.	River Management Activities and Works related to Border Areas	176.09	0.00	199.30	0.00	174.30	0.00	199.00	0.00	199.00
3.	Infrastructure Development	6.56	0.00	9.50	0.00	9.50	0.00	15.00	0.00	15.00
	<b>Total - FC</b>	<b>196.33</b>	<b>0.00</b>	<b>233.80</b>	<b>0.00</b>	<b>203.80</b>	<b>0.00</b>	<b>250.00</b>	<b>0.00</b>	<b>250.00</b>
	<b>Total – A+B+C</b>	<b>453.23</b>	<b>359.38</b>	<b>600.00</b>	<b>403.00</b>	<b>540.00</b>	<b>445.00</b>	<b>700.00</b>	<b>405.00</b>	<b>1105.00</b>
<b>D</b>	<b>AIBP and other Water Resources Programme **</b>	<b>8553.70</b>	<b>0.00</b>	<b>9700.00</b>	<b>0.00</b>	<b>9700.00</b>	<b>0.00</b>	<b>11500.00</b>	<b>0.00</b>	<b>11500.00</b>
	<b>GRANT TOTAL (A+B+C+D)</b>	<b>9006.93</b>	<b>359.38</b>	<b>10300.00</b>	<b>403.00</b>	<b>10240.00</b>	<b>445.00</b>	<b>12200.00</b>	<b>405.00</b>	<b>12605.00</b>

Source of financing: \* Demand No.103 – Ministry of Water Resources for 2010-2011 (excluding AIBP).

\*\* Details shown in Demand No. 35- Ministry of Finance (Transfers to State and Union Territory Governments).

**TABLE – C****UTILISATION CERTIFICATES OUTSTANDING IN RESPECT OF GRANTS  
/LOANS RELEASED UPTO 31.03.2007.**

Name of the Ministry / Department –Ministry of Water Resources

**Position as on 31.12.2009**

<b>No. of UCs Outstanding in r/o grants released upto march 07</b>	<b>Amount involved (Rs in Crores)</b>	<b>No. of UCs received</b>	<b>Amount involved in respect of UCs received</b>	<b>No. of UCs outstanding as on 31.12.2009</b>	<b>Amount involved on outstanding UCs (Rs in crores)</b>
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>
<b>43</b> (Institutions & Autonomous bodies)	2.22	15	0.59	28	1.63
<b>21*</b> (State Govts.)	38.38	7	1.59	14	36.79

\*Details of outstanding UCs in r/o grants/loans released to various state govts.

<b>Name of the SMD</b>	<b>No. of UCs Outstanding in r/o grants released upto march, 07</b>	<b>Amount involved (Rs in Crores)</b>	<b>No. of UCs received</b>	<b>Amount involved in respect of UCs received</b>	<b>No. of UCs outstanding as on 31.12.2009</b>	<b>Amount involved on outstanding UCs(Rs in crores)</b>
	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>
Minor Irrigation	2	0.04	0	0	2	0.04
Ganga Wing	12	5.68	7	1.59	5	4.09
Command Area Development	7	32.66	0	0	7	32.66
Total	21	38.38	7	1.59	14	36.79

## CHAPTER - VI

### REVIEW OF PERFORMANCE OF STATUTORY/AUTONOMOUS ORGANIZATIONS AND PUBLIC SECTOR UNDERTAKINGS

#### STATUTORY BODIES:

##### 6.1 BRAHMAPUTRA BOARD:

6.1.1 **Constitution:** The Brahmaputra Board was constituted in 1980 by an Act of Parliament (Act 46 of 1980 called “The Brahmaputra Board Act”) with the objective of planning and integrated implementation of measures for control of floods and bank erosion in Brahmaputra and Barak Valley and for matters connected therewith. It started functioning since January 11, 1982 with headquarters at Guwahati, Assam. The jurisdiction has been extended in June, 2006 to include Sikkim and a part of West Bengal falling within the Brahmaputra Basin.

##### 6.1.2 Major functions:

The main function of the Board as per the Act is survey and investigations in the Brahmaputra Valley and preparation of Master Plans for the control of flood and bank erosion and improvement of drainage giving due importance to the development and utilization of Water Resources of the Brahmaputra Valley for irrigation, hydropower, navigation and other beneficial purposes. Its assignment also includes preparation of Detailed Project Report of the Dams and other projects identified in Master Plan as approved by Central Government and to take up construction and maintenance of the projects approved by the Central Govt. and works connected there with as proposed in the Master Plan and also to maintain and operate such dams and works.

6.1.3. During the year 2009-10, 3 (three) sub-basin Master Plan viz. Dhansiri (N), Barnadi and Buroi were completed and approved by Government of India. Survey & investigation and preparation of another 13 (thirteen) number of Master Plans were under progress. The field investigations for preparation of DPR in respect of eight Multi-Purpose Projects was continued.

6.1.4 The works for the Majuli Island for Phase – I (revised cost Rs. 56.07 crore) were continued during the year and 95% works have been completed. Phase-II & III works with estimated cost of Rs.115.03 crore were taken up during 2009-10 and 10% works have been completed and expenditure of Rs.10.12 crore has been incurred.

6.1.5 Anti erosion works under Dhola Hatighuli Phase-IV (Rs.53.11 crore) were taken up in 2009-10 and 15% work has been completed and expenditure of Rs.2.53 crore has been incurred.

6.1.6 The execution of 7 (seven) Drainage Development Schemes viz. Harang (Rs.30.49 cr), Barbhag (Rs.7.23 cr.), Amjur (Rs.14.15 cr), Jengrai (Rs.1.49 cr.), Jakaichuk (Rs.2.96 cr.), Singla (Rs.3.54 cr.) and East of Barpeta (Rs.1.34 cr.) were continued in 2009-10. The progress achieved till January, 2010 on works of different drainage schemes was 30% in

Harang, 26% in Barbhag, 15% in Amjur, 30% in Jengrai, 50% in Jakaichuk, 3% in Singla and 30% in East of Barpeta.

6.1.7 The North Eastern Hydraulic and Allied Research Institute (NEHARI) under Brahmaputra Board has taken up the works of testing of quite a good numbers of soil, rock and concrete samples for Brahmaputra Board, NEEPCO, CWC, NHPC etc..

## **6.2. Ravi and Beas Waters Tribunal**

6.2.1 The Ravi and Beas Waters Tribunal, which was constituted in April, 1986 as per the Punjab Memorandum of Settlement, submitted its report in January, 1987. This report was forwarded in May, 1987 to the concerned State Governments. In August 1987 further reference was made to the Tribunal comprising reference by the Central Government and references received from the Governments of Punjab, Haryana and Rajasthan seeking explanation/guidance on certain points of the report. The Tribunal could not function during 09.03.89 to 17.11.96 and 04.01.99 to 09.06.2003 as post of a Member remained vacant during these periods. After filling up of the post on 10.06.03, the Tribunal has been holding hearings which however, have to be adjourned pending the outcome of a Presidential Reference on Punjab Termination of Agreements Act, 2004 before the Hon'ble Supreme Court.

## **6.3 Cauvery Water Disputes Tribunal**

6.3.1. The Cauvery Water Disputes Tribunal (CWDT) was constituted by the Government of India on 2<sup>nd</sup> June, 1990 to adjudicate the water dispute regarding Inter State River Cauvery and the river valley thereof. The tribunal has submitted its report and decision on 05.02.2007 under section 5(2) of Interstate River Water Disputes Act, 1956. The concerned states and the Central Govt. have sought clarification and guidance under section 5(3) of the Act. Party states have filed special leave petitions in the Hon'ble Supreme Court against the decision dated 5.2.2007 of the tribunal. Further, the tribunal considered the Petitions filed under section 5(3) of the Inter State River Water Disputes Act, 1956 by the Party States and the Union Territory of Pondicherry and the Central Government on 10.07.2007. The Hon'ble Tribunal after observed that the party States have filed Special Leave Petition against the Tribunal's decision dated 05<sup>th</sup> February 2007 before the Hon'ble Supreme Court and the Hon'ble Supreme Court has granted Special Leave and the same is pending before them. The Hon'ble Tribunal ordered that further action by the Tribunal will be taken only after decision of the Supreme Court on the special leave petitions becomes available. The preliminary hearing of SLP was held before the Hon'ble Supreme Court of India on 12<sup>th</sup> May, 2009 and on 20.09.2009 and the matter is under consideration of Hon'ble Supreme Court. The terms of the tribunal has been extended by the Govt. upto 02.11.2010.

## **6.4 Krishna Water Disputes Tribunal**

6.4.1. The Krishna Water Disputes Tribunal (KWDT) was constituted on 2nd April, 2004 for adjudication of the dispute relating to sharing of waters of Inter-State River Krishna and river valleys thereof. Meanwhile, in the Writ Petition filed by the Govt. of A.P., Hon'ble

Supreme Court has ordered that the effective date of constitution of the tribunal will be 01.02.06. Consequently, the term of the tribunal has been extended up to 31.1.2010 and further upto 30.09.2010.

6.4.2. 32 issues have been framed to be decided by the Tribunal. Party States have so far filed 108 Interlocutory Applications (IAs). Out of them, 106 IAs have been disposed of by passing necessary orders after hearing the Party States.

6.4.3. Oral evidence of the witnesses started during the year 2007 beginning with the State of Karnataka followed by the State of Maharashtra and Andhra Pradesh. Evidence of the three witnesses including that of one witness in rebuttal of the State of Karnataka, four witnesses of the State of Maharashtra and four witnesses of the State of Andhra Pradesh have been recorded. Evidence of the witnesses of the State of Andhra Pradesh is over. States of Karnataka and Maharashtra have concluded their arguments. The arguments on behalf of State of Andhra Pradesh are continuing.

6.4.4. On request of the parties, Hydrographic Survey was directed to be conducted under Section 9 (2) of ISWRD Act at Almati Dam and Hippargi Barrage through an agency who had submitted its original Report and further the agency was directed to prepare a Supplementary Report and same was filed. Further, while filing the supplementary report, Tojo Vikas International Pvt. Ltd. vide their letter dated 30.11.2009 made a prayer for extension of further time to submit 110 drawings and the 15 C.Ds in support of the Supplementary Report. The said Drawings along with C.Ds have been filed. Thereafter, arguments on the Hydrographic Survey Report and the supplementary Survey Report have been started on 15.12.2009 and yet to be completed. Arguments are also continuing in the main matter also.

## **AUTONOMOUS BODIES (SOCIETIES)**

### **6.5 National Water Development Agency**

6.5.1. The Ministry of Water Resources(MOWR) and Central Water Commission (CWC) formulated a National Perspective Plan(NPP) for water resources development in 1980, envisaging inter basin transfer of water from water rich areas to water deficit areas in the country which comprises of two component, namely Himalayan River Development Component and Peninsular River Development Component. National Water Development Agency (NWDA) was setup under Ministry of Water Resources in July, 1982 as Registered Society under the Societies Registration Act, 1860 for carrying out various technical studies to establish the feasibility of the proposals of NPP and to give concrete shape to it.

6.5.2. The objectives of National Water Development Agency, as amended from time to time are:

- a) To carry out detailed surveys and investigations of the possible reservoir sites and interconnecting links in order to establish feasibility of the proposal of Peninsular Rivers Development and Himalayan Rivers Development

Components forming part of National Perspective Plan for water resources development prepared by the then Ministry of Irrigation(now Ministry of Water Resources) and Central Water Commission.

- b) To carry out detailed studies about quantum of water in various Peninsular River Systems and Himalayan River Systems and which can be transferred to other basins/States after meeting reasonable needs of basin States in the foreseeable future.
- c) To prepare feasibility reports of various components of the schemes relating to Peninsular Rivers Development and Himalayan Rivers Development.
- d) To prepare detailed project report of river link proposals under National Perspective Plan for Water Resources Development after concurrence of the concerned States.
- e) To prepare pre-feasibility/feasibility report of the intra-state links as may be proposed by the States.
- f) To do all such other things the Society may consider necessary, incidental, supplementary or conducive to the attainment of above objectives.

6.5.3. The Hon'ble Union Minister of Water Resources is the President of the National Water Development Agency Society, which is the apex body of NWDA. The Annual General Meeting of the Society is held once a year to review the programme and progress of the Agency. The Governing Body of the NWDA headed by Secretary (Water Resources) reviews the programme and progress of works in every six months. The Technical Advisory Committee (TAC) of the Agency under the Chairmanship of the Chairman, Central Water Commission examines various technical proposals framed by the Agency. All the concerned states are represented in these committees.

6.5.4. Based on various studies conducted, NWDA has identified 30 links (16 under Peninsular Component & 14 under Himalayan Component) for the preparation of Feasibility Reports (FRs). Out of these, FRs of 14 links under Peninsular Component and 2 links (Indian Portion) under Himalayan Component have already been completed. Further S&I (Indian portion) in respect of another 5 links under Himalayan Component have been completed. Pre-Feasibility Reports (PFRs) of 7 intra state links proposed by states have also been completed.

6.5.5. An expenditure of Rs. 22.54 crore was incurred by NWDA on ILR programme during 2009-10 (upto Dec. 09). Various studies were continued by NWDA during the year. Further, Detailed Project Report (DPR) of Ken-Betwa link has been completed and that of two more links namely Par-Tapi-Narmada and Damanganga-Pinjal were initiated during 2008-09.

6.5.6. During the year 2010-11, an outlay of Rs. 40.00 crore has been provided for NWDA. NWDA would continue to do Survey & Investigation required for ILR programme and preparation of DPR of above two links. Further, it is planned to complete Survey & Investigation works of 3 links in Himalayan Component (Indian Portion).

## 6.6 National Institute of Hydrology (NIH):

6.6.1 The National Institute of Hydrology (NIH) is an apex S&T organization conducting basic, applied and strategic research in the fields of hydrology and water

resources in the country. It was established in December 1978 with Headquarters at Roorkee as an autonomous society under the Ministry of Water Resources. The Union Minister for Water Resources is the President and the Union Minister of State for Water Resources is the Vice-President of the Society. The Institute is managed, administered, directed and controlled by the Governing Body with Secretary (Water Resources) as its Chairman. Technical Advisory Committee, with the Chairman, Central Water Commission as its Chairman, is responsible for technical scrutiny of the research programmes of the institute. Director of the institute is the principal executive officer of the Society.

6.6.2. Main objectives of the Institute are:

- i) To undertake, aid, promote and coordinate systematic and scientific work in all aspects of hydrology;
- ii) To cooperate and collaborate with other national and international organisations in the field of hydrology;
- iii) To establish and maintain a research and reference library in pursuance of the objectives of the society and equip the same with books, reviews, magazines and other relevant publications; and
- iv) To carry out activities that the Society may consider necessary, incidental or conducive to the attainment of the objectives for which the Institute has been established.

6.6.3 **Structure:** The studies and research in the Institute are carried out under five scientific divisions at the Headquarters, two Centres for flood management studies at Guwahati and Patna and four regional Centres at Belgaum, Jammu, Kakinada and Sagar. The scientific divisions at headquarters are: (i) Surface Water Hydrology (ii) Ground Water Hydrology (iii) Environmental Hydrology (iv) Water Resources Systems and (v) Hydrological Investigations.

6.6.4 **Regional Centres:** Hydrological studies of different regions are being carried out at the various regional centres of the Institute i.e. (a) Deccan Hard Rock Regional Centre, (b) Western Himalayan Regional Centre, (c) Deltaic Regional Centre and (d) Ganga Plain South Regional Centre.

6.6.5 Ganga Plains North Regional Centre, Patna and North Eastern Regional Centre, Guwahati of NIH have been renamed as as Centre for Flood Management Studies for Ganga Basin, Patna and Centre for Flood Management Studies for Brahmaputra Basin, Guwahati, respectively and these centres focus mainly on the hydrological studies for flood management in the respective basins.

6.6.6. Performance during 2009-10 and targets for the year 2010-11 are shown below:

Sl.No.	Expected output Item	Physical target for year 2009-10	Physical achievements for year 2009-10(upto Dec.)	Target for the year 2010-11
1.	Completion of physical/	50	29	55



	mathematical model/desk studies/Lab. Studies			
2.	Preparation of technical reports/studies completed	30	17	27
3.	Publication of research papers	160	140	174
4.	Preparation of guidelines/manuals	2	-	1
5.	Organization of workshops /seminars/ symposia	12	9	15
6.	Training of Personnel	25	20	15
7.	Technology Transfer Activity	<b>10</b>	<b>7</b>	<b>8</b>

An expenditure of Rs. 4.72 and Rs. 5.26 crore has been incurred under R& D Programme and Hydrology Project –II respectively till December 2009.

## **PUBLIC SECTOR UNDERTAKINGS:**

### **6.7 Water and Power Consultancy Services(India) Limited (WAPCOS):**

6.7.1. WAPCOS Limited is a “MINI RATNA” Public Sector Enterprise under the aegis of the Union Ministry of Water Resources. Incorporated on June 26<sup>th</sup>, 1969 under the Companies Act. 1956, WAPCOS has been providing consultancy services in all facets of Water Resources, Power and Infrastructure Sectors in India and Abroad. The quality management systems of WAPCOS comply with the Quality Assurance requirements of ISO 9001:2000 for Consultancy Services in Water Resources, Power and Infrastructure Development Projects, as certified by Indian Register Quality Systems.

6.7.2. **MISSION:** WAPCOS’ Mission is “Sustained profitable growth through excellence in performance, total client satisfaction, innovativeness and State-of-the-art technical expertise”.

6.7.3. **OBJECTIVES:** The objectives of the Company are:

- (i) To perform the role of a premier agency for offering integrated package of services of the highest scientific, technological and managerial quality with a view to ensure optimal planning and development of water resources and maximizing the efficiency of its utilization.
- (ii) To adopt modern technology and systems to build in quality, reliability and accuracy thereby ensuring a high degree of customer satisfaction.
- (iii) To continue the pace of growth of domestic and overseas business and to transfer know-how to other developing nations
- (iv) To specialize and sustain international standards in surveys, investigations, designs,

cost estimates, project planning including environmental studies and project management services for cost-effective and integrated development of Water resources, Power and Infrastructure Development.

- (v) To promote research and development actively through interaction with other national and international agencies.
- (vi) To maintain pre-eminence in the field of consultancy through diversification into areas of new challenges and needs in associated fields.
- (vii) To secure a fair monetary return to the enterprise as a result of its operations through improved productivity and optimization.
- (viii) To play a dynamic role in realizing the potentials by state-of-the-art consultancy in innovative design alternatives.
- (ix) To specialise and attain the highest level of International Standards in providing Consultancy Services.
- (x) To attract the best available talent and promote a committed and motivated workforce.
- (xi) Increase in business growth and effective business management.
- (xii) To gain total client satisfaction
- (xiii) To promote WAPCOS as a Brand Name.

**6.7.4. FIELDS OF SPECIALISATION:** Main fields of specialization of the Company cover Irrigation, Drainage and Water Management, Ground Water Exploration, Development of Wells and Minor Irrigation, Flood Management, Reclamation and River Morphology, Rainfed and Irrigated Agriculture, Dams and Reservoirs, Lakes and Wetlands, Water Supply and Sanitation, Sewerage and Storm Water Drainage, Rural and Urban Development, Ports and Harbours, Roads and Highways, Hydropower and Thermal Power Development, Transmission and Distribution of Power, Rural Electrification, Non Conventional Sources of Energy, Environmental Engineering, Natural Resources Management, System Studies and Information Technology, Human Resources Development. The Company has amended its Articles of Association to provide concept to commissioning services for developmental projects in India and Abroad.

**6.7.5. SPECTRUM OF SERVICES:** WAPCOS' spectrum of services covers a wide range of activities viz. Preliminary Investigations/Reconnaissance, Field Surveys and Investigations, Feasibility Studies/Planning/ Project Formulation, Engineering Designs, Drawings and Tendering Process, Project Management, Operation and Maintenance, Project Implementation, Institutional/Human Resources Development.

**6.7.6. REGISTRATION WITH INTERNATIONAL ORGANISATIONS AND OPERATIONS ABROAD:** WAPCOS is registered with various international funding agencies like World Bank/International Bank for Reconstruction and Development, African Development Bank, Asian Development Bank, Food and Agriculture Organization, International Fund for Agricultural Development, United Nations Development Program, World Health Organization, West African Development Bank, Indian Technical and Economic Cooperation (ITEC) Programme, Overseas Economic Cooperation Fund, Japan Bank for International Cooperation(JBIC) etc. WAPCOS is currently engaged in providing consultancy services in Afghanistan, Bhutan, Cambodia, Ethiopia, Eritrea, Laos, Lesotho,

Mozambique, Rwanda, Sudan, Swaziland, Uganda, Zambia and Zimbabwe. In India, WAPCOS is providing Consultancy Services in all States and Union Territories.

#### 6.7.7. **IMPORTANT ONGOING PROJECTS IN INDIA AND ABROAD:**

Some of WAPCOS' important on-going projects are:-

##### **ABROAD**

- (i) Reconstruction and Rehabilitation of Salma Dam Project, Afghanistan.
- (ii) Sudan Emergency Transport and Infrastructure Development Project-first ever project by an Indian PSU in Sudan.
- (iii) Development and Hygiene Education, Development of Dry Pit Latrines Designs for Local conditions for households & schools and development studies for Flood Areas and Solid Waste Management in Xai-Xai, Chokwe, Inhambane and Maxixe Municipalities, Mozambique.
- (iv) Stung-Tasal Water Resources Development Project, Cambodia.
- (v) Project Management of Transmission line from Kartie to Sta-Treng, Cambodia.
- (vi) Project Management Consultancy for Rehabilitation of West Baray Irrigation Project, Cambodia.
- (vii) Project Management of Nam song hydropower project & 115kV Transmission line and Purchase of Equipment for Rural Electrification Phase – 2, Laos.
- (viii) Development of six Irrigation Schemes in Champassak, Laos.
- (ix) Project Management of Punatsangchhu-I Hydro Electric Project, Bhutan
- (x) Detailed Project Report for Punatsangchu-II Hydro Electric Project, Bhutan
- (xi) Detailed Project Report for Arun-III Hydro Electric Project, Nepal
- (xii) Detailed Project Report for Mini Hydel Projects, Myanmar

##### **INDIA**

- (i) Design and Supervision Consultancy for Kochi, Thrissur and Kozhikode under Kerala Sustainable Urban Development ADB Funded Project- The largest consultancy project secured by WAPCOS in India since inception
- (ii) Planning, Survey, Design and Macro/Micro Canalization of Sardar Sarovar Project, Gujarat
- (iii) Quality Monitoring and Inspection of projects sanctioned under Rajiv Gandhi Gramin Vidyut Yojana in Uttarakhand, Himachal Pradesh, Punjab, Haryana, Rajasthan, Madhya Pradesh and Chhattisgarh
- (iv) Project Monitoring & Construction Supervision including Quality Control for Sewerage Projects under Jawaharlal Nehru National Urban Renewal Mission in Kerala and Madhya Pradesh
- (v) Independent Review and Monitoring Agency for Projects being taken under Jawaharlal Nehru National Urban Renewal Mission in Rajasthan, Madhya Pradesh and Haryana
- (vi) Master Plan for Damodar Valley River Scheme, West Bengal
- (vii) Supervision & quality monitoring services for Pradhan Mantri Gram Sadak Yojana works, Gujarat

- (viii) Mathematical Model Studies for revalidation of River Regulatory Measures of Kolkata Port Trust, West Bengal
- (ix) Detailed Project Reports for Hydro Electric Projects in Uttarakhand, West Bengal, Madhya Pradesh, Chhattisgarh and Andhra Pradesh
- (x) Detailed Project Report for Tidal Energy Project, West Bengal
- (xi) Preparation of Master Plan and detailed project report for Kalighai-Kapaleswar-Baghal Drainage Basin, West Bengal
- (xii) Engineering Consultancy & Supervision of Turnkey work including Project Monitoring in connection with surface water based piped water supply schemes for Arsenic affected areas, West Bengal

The Company has set the following targets for the year 2010-11:

<b>(Rs. in Crore)</b>	
<b>Item</b>	<b>Target fixed for Excellent Category</b>
Gross Sales	346.00
Gross Margin	40.00
Order Booking (Overseas)	168.00
Order Booking (Domestic)	152.00
Profit (Before Tax)	30.00

## **6.8. National Projects Construction Corporation Limited:**

6.8.1. National Projects Construction Corporation Limited (NPCC Ltd.) was incorporated in 1957 under Companies Act, 1956, as a construction Company for taking up the construction of mainly River Valley projects, dams, barrages, weirs, reservoirs, embankments, canals, irrigation and related infrastructural works. Presently, the authorized share capital of the Company is Rs.700 crore and its paid up capital is 94.53 crore. Out of this, 14 State Governments and Union Territories are shareholders for an amount of Rs.1.05 crore and the rest of the capital shares rest with the Central Government. The Corporate Office of the Company is at Faridabad and its Registered Office at New Delhi. Presently, it has 14 Zonal offices situated at Kolkata, Bhubneshwar, Guwahati, Silchar, Shillong, Raipur, Mumbai, J&K, Udhampur, Bangalore, Patna, Chhatisgarh, Ranchi, Lucknow, NCR Delhi and Dehradun. At present, it has 82 operational Units and the total manpower of the Company is 1930.

6.8.2. The Company performed well during the first ten years of its inception and paid dividend on paid up capital continuously till 1966-67 (barring the years 1962-63). However, from 1985-86 till 2005, the financial position of the Company deteriorated sharply.

6.8.3. The Government approved the revival proposal for conversion of the Govt. of India principal amount of Rs.219.43 Crore and the cumulative interest due & accrued on it as on the date of conversion to equity capital and further written down to 10% of value. GOI principal amount & cumulative interest has already been converted into equity and further writing down to 10% of its value is under process.

6.8.4. The projects taken up by the Company during 2009-10 included (IBB Fencing & Lighting Works, Road works at Tripura, Mizoram, Assam & Meghalaya, (ii) Assam Rifle works in different States of North Eastern Region, (iii) Indo-Tibetan Border Roads in Laddakh (J&K State) and (iv) PMGSY works in different districts of Bihar & UP etc. The existing business operational pattern is likely to be maintained during the year 2010-11 with innovative diversification.

6.8.5 The Company has set the following targets for the year 2010-11:

**(Rupee in crores)**

<b>S. No.</b>	<b>Financial indicator</b>	<b>Target for Excellent Category</b>
1	Gross Margin	21.50
2	Gross Sales	990.00
3	Gross Profit	20.75
4	New Business	725.00

## Ministry of Water Resources

## Performance of 2008-09

Sl.No.	Name of Scheme/ Programme	Objective/ Outcome	Outlay 2008- 09	Quantifiable Deliverables	Process/ Timelines	Achievements w.r.t Col (5) as on 31.3.2009	Remarks
1	2	3	4	5	6	7	8
1	Development of Water Resources Information System	To collect data from network of Hydrological Observation stations for overall resource assessment and analyzing the same for its characteristic (ii) To initiate process for development of water resources information system	46.00	(i) Observation of data for 878 hydrological observation sites and collection of other water related data to continue. (ii) Action to be taken for development of Water Resources Information System		Observations of data for 878 sites including 371 water quality observation sites continued. Activities continued for development of water resources information system.	
2	Hydrology Project	To extend and promote the sustained and effective use of the Hydrological Information System by all implementing agencies concerned with water resources planning and management in 13 States and 8 Central agencies	44.00	(a)Engagement of 6 Consultancies for the consolidation of HP-I activities and vertical Extension in Hydrological Information System (b) Implementation of the project components, I.e., institutional strengthening, vertical extension and horizontal expansion in the project Implementing agencies. The activities are to be implemented through the central agencies like, CWC, CGWB etc.	(a) 3 major consultancies are to start functioning from the beginning of the year 2008-09, whereas other 3 consultancies are likely to be in place during the middle of the year 2008-09 (b) Implementation of the project components will actively start from 2008-09 and the activities will continue up to 2012	a) 3 major consultancies are in place. and Evaluation of 4th consultancy for CWC is under progress. TOR needs revision by T&M consultants in respect of other two consultancies b) 31 proposals of Purpose Driven Studies Cleared by CWC & CGWB have been cleared by the world Bank in respect of IAs of Hydrology Project Phase-II. 29 new posts have been cleared by the DOE, MoF;	
3	Ground Water Management and Regulation	i). Ground Water Management Studies to prepare ground water management plan ii) Ground Water exploration utilizing scientific tools viz. Remote sensing and GIS, Geophysical surveys aided by drilling to locate ground water worthy areas. iii) Monitoring of ground water levels from Ground water monitoring stations iv) Short term water supply investigations for source finding to Central/State Govt. department v) Geophysical studies to selection of sites for ground water exploration and artificial recharge structures and deciphering aquifers	95.00	• Ground Water Management studies-1.50 Lakh Sq.Km. • Ground Water Exploration - 800 Wells • Monitoring of Ground Water Observation wells - 15640 4 times monitoring • Short term water supply investigations – Need Based(~300) Geophysical Survey a)Surface VES=2200 & Line Km. = NB b) Sub-Surface Bore hol logging = Need Based • Chemical analysis of water samples – 20000 samples • District reports – 23	One/Two Year	• Ground Water Management studies-1.50 Lakh Sq.Km. • Ground Water Exploration - 800 Wells • Monitoring of Ground Water Observation wells - 15640 4 times monitoring • Short term water supply investigations – Need Based(~300) Geophysical Survey a)Surface VES=2200 & Line Km. = NB b) Sub-Surface Bore hol logging = Need Based • Chemical analysis of water samples – 20000 samples • District reports – 23 • Ground Water Year Books = 23 • State Reports - 5 • State Atlas-2	

Sl.No.	Name of Scheme/ Programme	Objective/ Outcome	Outlay 2008- 09	Quantifiable Deliverables	Process/ Timelines	Achievements w.r.t Col (5) as on 31.3.2009	Remarks
1	2	3	4	5	6	7	8
		vi) Chemical studies to assess ground water quality vii) Preparation of Reports, Maps for use by planners and administrators viii) Regulation of Ground Water development by Central Ground Water Authority ix) Demonstrative project for Artificial Recharge to Ground Water for replicating the same by State Govt. and other agencies.		Ground Water Year Books = 23 • State Reports - 5 • State Atlas-2 • Ground Water Exploration Reports-18 • District Ground Water Brochures –All District Regulation of ground water development in notified areas by CGWA Demonstrative project for Artificial Recharge -8		• Ground Water Exploration Reports-18 • District Ground Water Brochures –All District Regulation of ground water development in notified areas by CGWA Demonstrative project for Artificial Recharge -8	
4	Investigation of Water Resources Development Schemes	Carrying of investigation in respect of identified projects for water resources development	37.00	Investigation and preparation of project report for identified project to continue.	The works of investigation/preparation of project report are covered in more than one year and are carried over to following years	a) The draft report of 10 HE projects in Arunachal Pradesh prepared. b) The work on investigation of ILR projects is continued. c) DPR of Ken Betwa link has been completed by 31.12.2008 d) States of Maharashtra and Gujarat have conveyed their concurrence on the MoU for preparation of DPR of Par Tapi Narmada & Daman Ganga Pinjal Links and work has been started in Jan., 09 & is planned to be completed by 31.12.11.	
5	Research & Development programme in Water Sector	The scheme comprises of various activities related to R&D and training in the water resources. sector These activities are being implemented by the premier research Institutes in the field of hydrology, hydraulics, soil and material sciences, i.e. NIH, CW&PRS and CSMRS and CWC. The outcomes of the programme will be improvement in efficiency of irrigation system, reduction in risk/hazard in water resources project, economic design for project and development of new / improved technology	60.00	The implementation of the scheme will help in capacity building and creation of additional facilities. The research output are generally in terms of technical report & research papers having recommendations for improved techniques for planning & design. Quantifiable deliverables are: (a) Research Reports = 300 (b) Research Papers = 160 (c) Training workshops = 35	The work is to be implemented by various organisations of the Ministry.	(i) Preparation of reports - 461 (ii) Research Papers - 240 (iii) Training and Seminars -40	

Sl.No.	Name of Scheme/ Programme	Objective/ Outcome	Outlay 2008- 09	Quantifiable Deliverables	Process/ Timelines	Achievements w.r.t Col (5) as on 31.3.2009	Remarks
1	2	3	4	5	6	7	8
6	Pagladiya Dam Project	Flood Control, Irrigation & Incidental Power Generation	1.00	Pre-construction activities to continue.	Activities to be implemented by Brahmaputra Board	Main construction activity of the project has not started due to non completion of the Zirat survey by the Government of Assam the work held up. Only normal R&M works for the assets created for the project are maintained with skeleton staff.	
7	Farakka Barrage Project.	(i)Maintenance of Farakka Barrage Project and its appurtenant structure including feeder canal, Jangipur Barrage etc. (ii)Anti-erosion works for protection of banks along river Ganga and its tributaries to train the river along main barrage.	75.00	(i) Maintenance of Farakka Barrage Project and its appurtenant structure including feeder canal, Jangipur Barrage etc. (ii) Erosion control in the extended jurisdiction of FBP from 40 km u/s to 80 km d/s of Farakka Barrage to save land, crops, orchards, public buildings etc. along river Ganga-Padma.	Implemented by Farakka Barrage Project. Activities continued throughout the year.	(i) Maintenance of Farakka Barrage, its appurtenant structures & anti-erosion works along river Ganga – Padma & its tributaries were continued, as per requirement. (ii)Anti-erosion works in a length of 4789m, amounting to Rs. 36 crore were completed	
8	River Basin Organisation/ Authority	The scheme is to encourage formulation of River Basin Organisation with the primary objective of providing a forum to all the co-basin states for taking up necessary studies and evaluation etc., with a view to identify the most appropriate alternative for optimum utilisation of resources and meeting the aspirations of all state-holders.	1.00	The creation of RBO has to be preceded by consultations with State Governments. Process of consultations was to be initiated during this year. A token provision has been kept in this regard		Ministry has sent proposal to the concerned states for constitution of the RBO for Mahanandi & Godavari rivers. The response of the state Government has not been received. The matters is being pursued with the concerned states.	
9	Dam Safety Studies and Planning	(i) Instrumentation Museum in CWC (ii) Preparation and digitisation of PMP atlases of 4 Basins and 6 Regions (iii) Development of	1.60	(i) Installation of Model / Fixtures and instrumentation for Museum (ii) Infrastructure improvement in HSO, CWC (iii) Preparation of Atlases for Ganga and Brahmaputra Basin	March, 09	1. Work of Environmental & Social Assessment(ESA)Studies have been completed. 2. Procurement of models/fixtures is under progress	
10	Flood Management	To provide financial assistance to various state governments for river management, flood control, anti-erosion, drainage development, flood proofing works in the critical areas in the country.	649.00	(i) River Management works in the critical areas. (ii) Anti-erosion works, drainage improvement works, etc. as suggested by Task-Force-2004 on Flood Management and Erosion Control in respect of Ganga and Brahmaputra Basin states. (iii) Coastal erosion works in maritime states. (iv) De-silting/ dredging of river sections in the selected reaches.	Central assistance is being provided to the State Governments on submission of detailed project proposals. The new proposals are considered by a Committee headed by Secretary (Expenditure) for release of the central assistance.	(i) A total of 53 proposals amounting to Rs. 1182 crore submitted by 10 states were included for providing central assistance. (ii) Funds amounting to Rs. 561 crore (including Rs. 39 crore for spilled over works of X plan) were released to States.	



Sl.No.	Name of Scheme/ Programme	Objective/ Outcome	Outlay 2008- 09	Quantifiable Deliverables	Process/ Timelines	Achievements w.r.t Col (5) as on 31.3.2009	Remarks
1	2	3	4	5	6	7	8
11	Infrastructure Development	<p>1. To procure land and construct office &amp; residential buildings for the Ministry of Water Resources and its attached/ subordinate organizations and</p> <p>2. Provision of necessary infrastructure for implementation of IT Plan in MoWR, CWC and CGWB.</p>	38.00	<p>(i) Acquisition of Land</p> <p>(ii) Construction of office/ residential buildings</p> <p>(iii) Procurement, upgradation and maintenance of latest I.T. hardware and software besides networking of database in field offices with Headquarters to facilitate e-governance and training of personnel in I.T. facilities.</p>	As acquisition of Land & Buildings is a time consuming process involving various agencies, some of the targeted works have spilled over to next year.	<p>Procurement of consumables and peripherals, AMC of IT equipment, expansion of Local Area Network, procurement of server, training on IT aspects has been completed in Ministry (Proper) and CWC. Work of office buildings of CWC at New Delhi, Hyderabad Kolkata and Guwahati were completed and these buildings were occupied. Funds were released for construction of boundary wall at BBSSR, divisional workshop &amp; store at Guwahati and land acquired for Regional &amp; Divisional office at Ahmedabad of CGWB. Latest audio/video conferencing facility along with related infrastructure etc. were installed in the Conference Hall of the Ministry</p>	There is a risk of spill over due to the fact that acquisition of land and construction of buildings is a time consuming process involving various Central & State Govt. authorities
12	Information, Education and Communication	<p>(i) To create awareness for optimal sustainable development, maintenance of quality and efficient use of country's water resources to match the growing demands on this precious natural resources with active involvement of all stakeholders in order to achieve accelerated, equitable, economic development of the country.</p> <p>(ii) To create awareness for the urgent need for mutual cooperation and adopting integrated planning and participatory approach in management.</p> <p>iii) To create awareness among the people about necessity of water conservation.</p>	13.00	To create awareness among the people, to provided education for sustainable development and utilization of Water Resources	continuing activity	<p>The following Mass Awareness Activities were carried out:-</p> <ol style="list-style-type: none"> <li>1. Electronic media campaign on various channels of Doordarshan and various stations of AIR;</li> <li>2. National Colloquium on WALMIs;</li> <li>3. Participation in IITF-2008;</li> <li>4. Advertisement of Bhoomijal Samvardhan Puruskars;</li> <li>5. Printing of 6 lakh Meghdoot postcards;</li> <li>6. Participation in Indian Science Congress at Shillong;</li> <li>7. Participation in ASOM International Trade Fair at Guwahati;</li> <li>8. Preparation of a documentary film on Farmers' Participatory Action Research Programme</li> <li>9. Advertisement of World Water Day-2009;</li> </ol>	

Sl.No.	Name of Scheme/ Programme	Objective/ Outcome	Outlay 2008- 09	Quantifiable Deliverables	Process/ Timelines	Achievements w.r.t Col (5) as on 31.3.2009	Remarks
1	2	3	4	5	6	7	8
		(iv) To promote advocacy on the tenets of National Water Policy with focus on learning, documenting and dissemination of knowledge of water science and technology and issues concerning sustained development of water resources. (v) To create awareness about necessity of adopting measures for rainwater harvesting and artificial recharge of ground water to meet present and future needs of water. (vi) To strengthen awareness infrastructure specially campaign mechanism and support structure				10. organisation of workshops/training programmes/ impact evaluation studies etc. on Command Area Development and Water Management.	
13	River Management Activities and Work Related to Border Areas	Hydrological observations and investigations of Water Resources Projects with neighboring countries besides river management works on common/border rivers. Flood control, Anti-erosion & Drainage development works by Brahmaputra Board. Maintenance of flood protection works of Kosi and Gandak Projects (in Nepal)	160.00	(i) Continuation of Joint Hydrological observations on river Ganga with Bangladesh, and (ii) Preparation of Joint Detailed Project Reports (DPR). (iii) Breach closure of left afflux bund of Kosi barrage in Nepal. (iv) Anti-erosion & Flood protection works of Majuli Island. (v) Transmission of flood related data from / to neighboring countries, (vi) Development works on common/border rivers.	Implemented by Central Water Commission, Ganga Flood Control Commission, Brahmaputra Board and State Governments of Bihar, Uttar Pradesh, Tripura, West Bengal & Jammu & Kashmir.	(i) Survey & Investigation of Pancheswar and Sapta Kosi projects (in Nepal) continued. (ii) Flood related data transmitted to Bangladesh. (iii) Joint Hydrological observations on river Ganga with Bangladesh continued as per Treaty of 1996. (iv) Anti-erosion & Flood protection works of Majuli Island continued. (v) in order to close the Kosi breach in eastern afflux bund in Nepal, an amount of Rs. 69.90 crore was released to the state government of Bihar. The state government of Bihar constructed three coffer dams and a diversion channel to divert the water towards western bank and thereafter, plugged the breached section up to a height of 82.50 meter during the year 2008-09.	Works delayed due to law & order problem in Nepal.
14	National Water Academy	Training for in service Engineers / Induction Engineers in Water Resources Planning, Development and Management	2.30	42 Training Programmes	An annual training schedule prepared	27 training programmes completed	
15	Rajiv Gandhi National Ground Water Training & Research Institute	Training of CGWB and other Central/ State Govt. officers and staff on ground water aspect	2.10	16 Training Courses	one year	Fifteen training courses have been conducted successfully and 308 trainees have been trained	Capacity building of professionals and sub-professionals in GW investigations, development an management techniques and also in administrative matters and management aspects.

Sl.No.	Name of Scheme/ Programme	Objective/ Outcome	Outlay 2008- 09	Quantifiable Deliverables	Process/ Timelines	Achievements w.r.t Col (5) as on 31.3.2009	Remarks
1	2	3	4	5	6	7	8
16	Flood Forecasting.	To maintain the network of Hydrological observations sites across the country by CWC covering 20 river basins to provide timely flood forecasts at 175 stations to the local administration.	23.00	Collection of real time data, its analysis and issue of flood forecasts. About 6000 forecasts are issued every year.	Implemented by Central Water Commission throughout the year.	A total of 6675 forecasts were issued; out of which 6529 were within permissible limits of accuracy.	Nil
17	Scheme for repair, renovation and restoration of water bodies.	i) To restore and augment the capacity of water bodies. (ii) To recover and expand their irrigation potential.	250.00	Projects of T.N., AP & Karnataka will cover CCA of 4 lakhs ha, 2.5 lakh ha. & 0.52 ha. respectively.	The State Govts. were responsible for implementation of the scheme.	The Govt. of Tamil Nadu has taken up 2000 schemes and an amount of Rs.181.8 cr. has been released for the project.  The Govt. of A.P. has taken up 1000 schemes and an amount of Rs.41.9 cr. has been released for the project.  The Govt. of Karnataka has taken up 300 schemes and an amount of Rs.9.3 cr. has been released for the project.  The Orissa project became effective in the month of March, 2009.	

**ANNEXURE-II**

**PERFORMANCE OF 2009-10 (up to December 2009)**

(Rs. in crore)

<b>S. No.</b>	<b>Name of Scheme/ Programme</b>	<b>Objective/ Outcome</b>	<b>Outlay 2009-10</b>	<b>Quantifiable Deliverables</b>	<b>Process/ Timelines</b>	<b>Achievements w.r.t. Col (5) as on 31.12.2009</b>	<b>Remarks</b>
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>
1.	Development of Water Resources Information System	(i) To collect data from network of Hydrological Observation stations for overall assessment of water resources and analysis of their characteristics (ii) Collection of information about minor irrigation through MI Census (iii) To establish infrastructure and launch the water resources information system.	70.00	(i) Continued hydrological observation at 878 site, (ii) development of water resources information system, (iii) continued activities for MI Census	Activities to continue throughout the year.	(i) Website of India WRIS was launched during 2009. Development of Water Resources Information System (WRIS) is under progress in cooperation with ISRO-DOS. (ii). Continued hydrological observations at 878 sites. (iii). Reports of 52 projects received from NRSA Hyderabad on the remote sensing monitoring of AIBP assisted major and medium irrigation projects. (iv). Seventh meeting of WQAA was held in Nov 2009. (v). For Minor Irrigation, 98.7% field work has been completed overall in all States / UTs. Out of which 30 States / UTs have completed 100% field work. Similarly 79% data entry work has been completed in all States /UTs out of which 18 States / UTs have completed 100% data entry.	
2	Research & Development programme in Water Sector	The scheme comprises of various activities related to R&D and training in the water resources sector. These activities are being implemented by the premier research Institutes in the field of hydrology, hydraulics, soil and material sciences, i.e. NIH, CW&PRS and CSMRS. Specific research/studies by CWC are also supported under the scheme. Assistance is also provided for research studies to WALMIs located in various States and Academic institutions for research & development in the field of	52.00	The implementation of the scheme will help in capacity building and creation of additional facilities. The research output are generally in terms of technical report & research papers having recommendations for improved techniques for planning & design. Quantifiable deliverables are: (a) Research Reports = 300 (b) Research Papers = 250 (c) Training workshops = 26	The work is to be implemented by various organizations of the Ministry, Research Papers-207  Training and workshop-16	Research/technical reports-143  Research Papers-207  Training and workshop-16	

S. No.	Name of Scheme/ Programme	Objective/ Outcome	Outlay 2009-10	Quantifiable Deliverables	Process/ Timelines	Achievements w.r.t. Col (5) as on 31.12.2009	Remarks
1	2	3	4	5	6	7	8
		Water Resources.					
3	National Water Academy	Training for in service Engineers / Induction Engineers in Water Resources Planning, Development and Management	2.60	42 Training Programmes	Annual training schedule prepared	26 training programmes completed up to Dec. 09	
4	Dam Safety Studies and Planning	(i). Instrumentation Museum in CWC (ii) Preparation and digitization of PMP atlases of 4 Basins and 6 Regions (iii) Development of Environmental and Social Management Framework through Environmental and Social Assessment Studies of 10 existing projects (iv) Risk Analysis and Other Specialised Studies of some existing Projects (v) Training and Development of special purpose packages on Dam Safety Activities.	1.00	(i). Setting up of Management Information System (MIS) for Dam Safety – 3/2010. (ii). Preparation of generalized PMP Atlas and updation of PMP Atlases and digitization of PMP Atlases- 3/2010. (iii). Models/fixtures for Instrumentation Museum – 3/2010.	Indicated in column 5 alongwith each item.	(i). Training programme on Dam Safety and Instrumentation and Hydrological review of existing projects has been completed. (ii). Action initiated for preparation of generalized PMP atlases – Expression of interest invited.	
5.	Hydrology Project	To extend and promote the sustained and effective use of the Hydrological Information System by all potential users concerned with water resources planning and management in 13 States and 8 Central Agencies	38.10	(a) Engagement of 4 Consultancies for the consolidation of HP-I activities and vertical Extension in Hydrological Information System (b) Implementation of the project components, i.e., institutional strengthening, vertical extension and horizontal expansion in the project Implementing agencies. The activities are to be implemented through the central agencies like, CWC, CGWB, NIH etc.  (c) Mid Term Review (MTR) of the Project to be carried out along with the World Bank	(a) 4 major consultancies to start functioning  (b) Implementation of the project components up to 2012.  (c) To conduct Mid Term Project.	a) 4 major consultancies are in place and are functioning.  b) Proposals of Purpose Driven Studies Cleared by CWC & CGWB have been cleared by the World Bank in respect of IAs of Hydrology project Phase- II.  (c) The Mid Term Review carried out in Oct.2009.	

<b>S. No.</b>	<b>Name of Scheme/ Programme</b>	<b>Objective/ Outcome</b>	<b>Outlay 2009-10</b>	<b>Quantifiable Deliverables</b>	<b>Process/ Timelines</b>	<b>Achievements w.r.t. Col (5) as on 31.12.2009</b>	<b>Remarks</b>
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>
6.	Investigation of Water Resources Development Schemes	Carrying of investigation in respect of identified projects for water resources development	42.00	Investigation and preparation of project report for identified project to continue.	The works of investigation/preparation of project report are covered in more than one year and are carried over to following years	a) The draft report of 10 HE projects in Arunachal Pradesh under finalization. b) The work on investigation of Water Resources Projects including ILR projects is being continued. The work for preparation of DPR of Par Tapi Narmada & Daman Ganga Pinjal Links continued d) S&I works in Indian Territory for preparation of FR in respect of 5 links under Himalayan Component of NPP completed. e) PFR of 3 Intra state links completed.	
7.	Pagladiya Dam Project	Flood Control, Irrigation & Ancillary Power Generation	0.50	Project is yet to be taken up due to non-completion of Zirat survey. Pre-construction activities to continue.	Activities to be implemented by Brahmaputra Board	Main construction activity of the project has not started due to non completion of the Zirat survey by the Government of Assam and the work is held up. Only normal R&M works for the assets created for the project are maintained with skeleton staff.	
8.	River Basin Organisation/ Authority	The scheme is to encourage formulation of River Basin Organisation with the primary objective of providing a forum to all the co-basin states for taking up necessary studies and evaluation etc., with a view to identify the most appropriate alternative for optimum utilisation of resources and meeting the aspirations of all state-holders.	1.00	The creation of RBO has to be preceded by consultations with State Governments. Process of consultations was to be initiated during this year. A token provision has been kept in this regard.		Ministry has sent proposal to the concerned states for constitution of the RBO for Mahanandi & Godavari rivers. The response of the state Government has not been received. The matters is being pursued with the concerned states.	
9.	Infrastructure Development Scheme	1. To procure land and construct office & residential buildings for the Ministry of Water Resources and its attached/ subordinate organizations and 2. Provision of necessary infrastructure for	15.00	(i) Acquisition of Land (ii) Construction of office/residential buildings (iii) Procurement, upgradation and maintenance of latest I.T. hardware and software besides networking of database in field offices with Headquarters to facilitate e-governance and	As acquisition of Land & Buildings is a time consuming process involving various agencies, some of the targeted works have spilled over to next year.	Procurement of consumables and peripherals, AMC of IT equipment, expansion of Local Area Network, procurement of servicer, training on IT aspects has been completed in Ministry (Proper) and CWC. Work of office buildings of CWC at New Delhi, Hyderabad,	There is a risk of spill over due to the fact that acquisition of land and construction of buildings is a time consuming process involving various Central & State

S. No.	Name of Scheme/ Programme	Objective/ Outcome	Outlay 2009-10	Quantifiable Deliverables	Process/ Timelines	Achievements w.r.t. Col (5) as on 31.12.2009	Remarks
1	2	3	4	5	6	7	8
		implementation of IT Plan in MoWR, CWC and CGWB.		training of personnel in I.T. facilities.		Kolkata (Office) occupied. Constructed of building of CGWB at Bangalore, Bhubneshwar, Guwahati, Bhopal and Ambala.	Govt. authorities.
10.	Flood Forecasting.	To maintain the network of Hydrological observations sites across the country by CWC covering 20 river basins to provide timely flood forecasts at 175 stations to the local administration.	25.00	Collection of real time data, its analysis and issue of flood forecasts. About 6000 forecasts are issued every year.	Implemented by Central Water Commission throughout the year.	A total of 3991 flood forecasts were issued during this period.	NIL
11.	Farakka Barrage Project.	(i) Maintenance of Farakka Barrage Project and its appurtenant structure including feeder canal, Jangipur Barrage etc.  (ii) Anti-erosion works for protection of banks along river Ganga and its tributaries to train the river along main barrage.	70.00	(i) Maintenance of Farakka Barrage Project and its appurtenant structure including feeder canal, Jangipur Barrage etc. (ii) Erosion control in the extended jurisdiction of FBP from 40 km u/s to 80 km d/s of Farakka Barrage to save land, crops, orchards, public buildings etc. along river Ganga-Padma.	Implemented by Farakka Barrage Project. Activities continued throughout the year.	(i) Maintenance of Farakka Barrage, its appurtenant structures & anti-erosion works along river Ganga – Padma & its tributaries were continued, as per requirement. (ii) Anti-erosion works in a length of 2883m, amounting to Rs. 46 crore were completed	
12.	River Management Activities and Work Related to Border Areas	Hydrological observations and investigations of Water Resources Projects with neighboring countries besides river management works on common/border rivers. Flood control, Anti-erosion & Drainage development works by Brahmaputra Board. Maintenance of flood protection works of Kosi and Gandak Projects (in Nepal).	199.30	(i) Continuation of Joint Hydrological observations on river Ganga with Bangladesh, and (i) Preparation of Joint Detailed Project Reports (DPR). (ii) Breach closure of left afflux bund of Kosi barrage in Nepal. (iii) Anti-erosion & Flood protection works of Majuli Island. (iv) Transmission of flood related data from / to neighboring countries, (v) Development works on common/border rivers.	Implemented by Central Water Commission, Ganga Flood Control Commission, Brahmaputra Board and State Governments of Bihar, Uttar Pradesh, Tripura, West Bengal & Jammu & Kashmir.	(i) Survey & Investigation of Pancheswar and Sapta Kosi projects* (in Nepal) continued. (ii) Flood related data transmitted to Bangladesh. (iii) Joint Hydrological observations on river Ganga with Bangladesh continued as per Treaty of 1996. (iv) Anti-erosion & Flood protection works of Majuli Island continued. (v) Breach closure works of Kosi embankment completed. Rs. 28.35 crore released further to Govt. of Bihar for this work. (vi) Rs. 12.51 crore and Rs. 8.77 crore released to Govt. of Tripura and West Bengal	* Works delayed due to law & order problem in Nepal.





S. No.	Name of Scheme/ Programme	Objective/ Outcome	Outlay 2009-10	Quantifiable Deliverables	Process/ Timelines	Achievements w.r.t. Col (5) as on 31.12.2009	Remarks
1	2	3	4	5	6	7	8
		<p>vii) Preparation of Reports, Maps for use by planners and administrators</p> <p>viii) Regulation of Ground Water development by Central Ground Water Authority.</p> <p>ix) Artificial recharge studies including construction of Artificial Recharge structures for replicating the same by State Govt. and other agencies.</p>		<ul style="list-style-type: none"> <li>Preparation of District reports-40</li> <li>Ground Water Year Books-23</li> <li>State Reports-7</li> <li>State Atlas-3</li> <li>Ground Water Exploration Reports-17</li> <li>State Geophysical Report-18</li> <li>State Chemical Report-18</li> </ul> <p>Regulation of ground water development in notified areas by CGWA</p> <p>8 Demonstrative project for Artificial Recharge studies in five states(Punjab, NT, Kerala, Arunachal Pradesh and West Bengal).</p>	<p>One year</p> <p>One year</p> <p>One year</p> <p>Two years</p> <p>Two years</p> <p>One year</p> <p>One year</p> <p>2-3 years</p>	<p>Analyzed water samples – 11997</p> <p>5 district reports completed &amp; rest are in progress</p> <p>12 Ground Water Year Books submitted</p> <p>In progress</p> <p>Under preparation</p> <p>In progress</p> <p>Issued- 1 rest are in progress</p> <p>In progress</p>	
15.	Rajiv Gandhi National Ground Water Training & Research Institute.	Training of CGWB and other Central/ State Govt. officers and staff on ground water aspect	2.00	16 Training Courses	One year	Ten training courses have been conducted successfully and 199 trainees have been trained	
16.	Information, Education and Communication	<p>(i) To create awareness for optimal sustainable development, maintenance of quality and efficient use of country's water resources to match the growing demands on this precious natural resources with active involvement of all stakeholders in order to achieve accelerated, equitable, economic development of the country,</p> <p>(ii) To create awareness for the urgent need for mutual cooperation and adopting</p>	12.00	To create awareness among the people to provide education for sustainable development and utilization of water resources	Continuing activity	<p>(i) Releasing of advertisements in SAR Economist and Survey of the Environment 2009 magazine, advertisement in newspapers for mass awareness on Rainwater Harvesting, Highlighting the achievements / progress under various schemes of the Ministry on the occasion of Independence Day, National Integration Day and on the occasion of 5<sup>th</sup> Asian Regional Conference to make SAVE WATER a national campaign</p>	

S. No.	Name of Scheme/ Programme	Objective/ Outcome	Outlay 2009-10	Quantifiable Deliverables	Process/ Timelines	Achievements w.r.t. Col (5) as on 31.12.2009	Remarks
1	2	3	4	5	6	7	8
		<p>integrated planning and participatory approach in management,</p> <p>(iii) To create awareness among the people about necessity of water conservation,</p> <p>(iv) To promote advocacy on the tenets of National Water Policy with focus on learning, documenting and dissemination of knowledge of water science and technology and issues concerning sustained development of water resources, (v) To create awareness about necessity of adopting measures for rainwater harvesting and artificial recharge of ground water to meet present and future needs of water.</p>				<p>(ii) Electronic media campaign through telecasting and broadcasting video/audio spots on conservation of water on Doordarshan, Lok Sabha TV and All India Radio's various channels,</p> <p>(iii) Participation in ASOM International Trade Fair, Guwahati, India International Trade Fair, New Delhi and SAARC Trade Fair at Thimpu, Bhutan</p> <p>(iv) Organisations of Mass Awareness Programmes and Water Management Training Programmes/workshops and various mass awareness activities related to IEC Scheme through CWC, CGWB and NIH</p>	
		<p>(vi) To strengthen awareness infrastructure specially campaign mechanism and support structure.</p>				<p>(v) Nukkad Natak shows/quiz shows and distribution of stickers, pamphlets etc. at IITF-2009, (vi) Organising conference of Principal Secretaries/ WALMIs at New Delhi (vii) Organisation of Water Resources Day at Guwahati through CGWB, (viii) Organisation of workshop on Remote sensing at MoWR, New Delhi, (ix) Organised workshops on Strategies for Water Conservation Artificial Recharge and improving Water Use Efficiency for benefit of Armed Forces at Kargil, Gangtok and Jodhpur, (x) Backlit transslides on Do's and Don'ts on water conservation fixed at the entrance gate of Shram Shakti Bhawan.</p>	

<b>S. No.</b>	<b>Name of Scheme/ Programme</b>	<b>Objective/ Outcome</b>	<b>Outlay 2009-10</b>	<b>Quantifiable Deliverables</b>	<b>Process/ Timelines</b>	<b>Achievements w.r.t. Col (5) as on 31.12.2009</b>	<b>Remarks</b>
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>
17.	Repair, renovation and restoration of water bodies.	Restore and augment the capacity of water bodies to recover and expand their irrigation potential, improvement of agriculture / horticulture productivity, Development of tourism, Cultural activities, increased availability of drinking water.	Rs. 399 crore  (Rs.199 cr under EAP & Rs.200 cr under *domestic support	Under this scheme, the World Bank Loan Agreement has been signed with Tamil Nadu for US \$ 485 million to restore 5763 water bodies having a CCA of 4 lakh hectares. Tamil Nadu Govt. taken up works in 50 water bodies in 2007-08, 1103 water bodies in 2008-09 and 848 water bodies during the current year. So far works have been completed in 922 water bodies. Agreement has been signed with Andhra Pradesh for US \$ 189 million in June, 2007 for restoration of 3000 water bodies with a CCA of 2.5 lakh hectares. Works have been commenced in 1500 water bodies during 2009-10. In addition administrative approval has been accorded for 1160 water bodies.  Karnataka project was signed with the World Bank for restoration of 1224 water bodies having a CCA of 0.52 lakh and with Orissa for US \$ 112 million.  Orissa and Karnataka Governments have taken up works in 67 water bodies and 1160 water bodies respectively during 2009-10. There is a delay in progress of the Orissa project due to procurement of support organizations /consultants.	These schemes are being continued	The expansion of the programme envisages, Increase in ground water recharge, Improvement in agricultural / horticulture productivity, Development of tourism, cultural activities.	

**ACCELERATED IRRIGATION BENEFITS PROGRAMME & NATIONAL  
PROJECT**

The Accelerated Irrigation Benefits Programme(AIBP) was launched during 1996-97 to give loan assistance to the states to help them complete some of the incomplete major/medium irrigation projects which were in an advanced stage of completion and create additional irrigation potential in the country. The Surface Minor Irrigation Schemes of North-Eastern States, Hilly States of Sikkim, Uttaranchal, Jammu and Kashmir, Himachal Pradesh and undivided Koraput, Bolangir and Kalahandi Districts of Orissa have also been provided Central Loan Assistance(CLA) under this programme since 1999-2000. Grant component has been introduced in the programme from April, 2004 like other Central sector schemes. As per the existing AIBP criteria effective from December, 2006, grant amounting to 25% of the project cost for major and medium irrigation projects in non-special category States and 90% grant of the project cost for major/medium/minor irrigation projects in special category States (including undivided Koraput, Bolangir and Kalahandi districts of Orissa) are provided to the selected projects. The minor irrigation schemes in non-special category States falling in drought prone/tribal areas are treated at par with special category States and are released 90% grant of the project cost. Major and medium projects providing irrigation benefit to drought prone/Tribal area and flood prone area are also eligible for 90% grant of the project cost. The State Governments have been provided an amount of Rs.38898.8018 crore as CLA/Grant under AIBP since inception of this programme till 01.2.2010 for 275 major/medium irrigation projects and 10316 Surface minor irrigation schemes. After commencement of this Programme 110 major/medium and 6959 Surface MI Schemes have so far been completed. An additional irrigation potential of 5.486 million hectare has been created through major/medium irrigation projects and an irrigation potential of 0.454 million hectare has been created through Surface MI Schemes upto March, 2009.

As per the prevailing AIBP guidelines, projects benefiting drought prone/tribal area, projects included in the Prime Minister's relief package for agrarian distress districts of Maharashtra, Karnataka, Andhra Pradesh and Kerala and projects in the States having irrigation development below national average could be included in AIBP in relaxation to one to one criteria of inclusion of new project under AIBP. Of the 65 major/medium projects initially included in the Prime Minister's relief package for agrarian distressed districts of Andhra Pradesh, Karnataka, Kerala and Maharashtra, so far 38 projects have been funded under AIBP. The grant released so far for these projects is Rs.4509.422 crore.

For the year 2009-10, budget allocation of Rs.8000 crore has been made by the Ministry of Finance for AIBP for 2009-10 which includes Rs.1800 crore for National Projects.

## **NATIONAL PROJECTS**

The Union Cabinet in its meeting held on 7<sup>th</sup> February 2008 has given its consent to the proposal of the Ministry of Water Resources on Implementation of National Projects with central assistance of 90% of the cost of the project as grant falling in the following selection criteria:

- (i) International projects where usage of water in India is required by a treaty or where planning and early completion of the project is necessary in the interest of the country.
- (ii) Inter-State projects which are dragging on due to non-resolution of inter-State issues relating to sharing of costs, rehabilitation, aspects of power production etc., including river interlinking projects.
- (iii) Intra-state projects with additional potential of more than 2,00,000 ha. and with no dispute regarding sharing of water and where hydrology is established

Ministry of Water Resources has finalized modalities of funding and guidelines for implementation of scheme of National Projects in consultation with Planning Commission and Ministry of Finance and has sent the same to all the states and Union Territories. During the year 2008-09, proposal of Gosikhurd Project of Maharashtra for funding under the scheme of National Project was received for which grant amounting to Rs.450 crore has been released under the AIBP for implementation of project under the scheme of National Project.

During 2009-10 an amount of Rs.720 crore has been released to Gosikhurd Project for funding under National Project.

<b>ANNEXURE -IV</b>									
<b>STATEMENT SHOWING DETAILS OF MINISTRY OF WATER RESOURCES BUDGET VIS-À-VIS XI PLAN OUTLAY</b>									
(Rs. in Crore/Net)									
Sector/Orgn/ Scheme	XI Plan	Heads of	B.E.	Actual	B.E.	Actual	B.E.	R.E.	B.E.
	Outlay	Accounts	2007-08	2007-08	2008-09	2008-09	2009-10	2009-10	2010-11
<b>Major &amp; Medium Irrigation</b>									
1. National Water Academy	15.00	2701	2.00	1.86	2.30	2.37	2.60	2.60	4.00
2. Research & Development Programme	260.00	2701	30.00	33.28	60.00	39.81	52.00	35.00	54.00
3. Hydrology Project	180.00	2701	33.00	6.98	44.00	9.92	38.10	25.10	53.00
4. Development of Water Resources Information System	200.00	2701	30.00	18.65	46.00	45.58	70.00	70.00	66.00
5. Infrastructure Development	**	2701	4.00	1.33	5.00	2.06	1.00	1.00	3.00
6. Investigation of Water Resources Development	260.00	2701	30.00	25.09	37.00	36.17	42.00	42.00	54.00
7. Information, Education and Communication	90.00	2701	2.00	1.32	13.00	9.08	12.00	12.00	15.00
8. Dam Safety Studies and Planning	10.00	2701	1.00	0.48	1.60	0.80	1.00	1.00	1.50
9. River Basin Organisation/Authority	50.00	2701	0.50	0.00	1.00	0.00	0.50	0.50	0.50
<b>Total: Major and Medium Irrigation</b>	<b>1065.00</b>		<b>132.50</b>	<b>88.99</b>	<b>209.90</b>	<b>145.79</b>	<b>219.20</b>	<b>189.20</b>	<b>251.00</b>
<b>Minor Irrigation</b>									
<b>Surface Water Schemes</b>									
10. Ground Water Management and Regulation	460.00	2702	62.00	48.11	95.00	54.37	70.00	70.00	100.00
11. Rajiv Gandhi NGWT&RI	25.00	2702	1.50	0.60	2.10	0.64	2.00	2.00	6.00
12. Infrastructure Development	**	4702	4.55	1.27	7.00	2.07	4.50	4.50	10.50
<b>Total: Minor Irrigation</b>	<b>485.00</b>		<b>68.05</b>	<b>49.98</b>	<b>104.10</b>	<b>57.08</b>	<b>76.50</b>	<b>76.50</b>	<b>116.50</b>
13. Command Area Development Programme	\$\$	2705	300.00	277.84	0.00	0.00	0.00	0.00	0.00
<b>Total: CAD &amp; WM</b>			<b>300.00</b>	<b>277.84</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
<b>Flood Control Sector</b>									
14. Flood Forecasting	130.00	2711	16.00	13.91	23.00	13.68	25.00	20.00	36.00
15. Infrastructure Development	**	4711	3.45	1.54	26.00	6.56	9.50	9.50	15.00
16. River Management Activities and works related to Border Rivers	601.00	2711	46.00	51.44	160.00	176.09	199.30	174.30	199.00
17. Pagladia Dam Project	500.00	2552	1.00	1.35	2.00	0.00	0.50	0.50	0.50
<b>Total: Flood Control Sector</b>	<b>1231.00</b>		<b>66.45</b>	<b>68.24</b>	<b>211.00</b>	<b>196.33</b>	<b>234.30</b>	<b>204.30</b>	<b>250.50</b>
<b>Transport Sector</b>									
18. Farakka Barrage Project	350.00	5075	33.00	30.99	75.00	54.03	70.00	70.00	82.00
<b>** Total allocation for XI Plan</b>	<b>115.00</b>								
<b>\$\$ Scheme has been transferred to State Sector w.e.f. 2008-09</b>									
<b>Grant Total</b>	<b>3246.00</b>		<b>600.00</b>	<b>516.04</b>	<b>600.00</b>	<b>453.23</b>	<b>600.00</b>	<b>540.00</b>	<b>700.00</b>