

Presentation on
Workshop Conducted on 17-08-2023
at SCOPE Complex Auditorium, New Delhi
regarding
1st Census of Major and Medium
Irrigation(MMI) Projects

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Irrigation sector challenges

- Achieving full utilisation of created facilities i.e. **reduction of gap between IPC and IPU**.
- Improving water use efficiency in MMI Projects from the current level of 30-35%.
- Ensuring physical and financial sustainability of MMI projects.
- Incentivising state irrigation agencies for the promotion of **Participatory Irrigation Management** (PIM) and volumetric water pricing and delivery to **Water User Associations** (WUAs).
- Slow pace of CAD works by the States.
- Decline in O&M of MMI Projects and growing default maintenance.

Reasons for low water use efficiency

- Lack of proper maintenance of canals and its distribution network.
- Unlined/Earthen canals and damaged canal lining.
- Absence of CAD works.
- No/minimal water charges
- Irrigation by flooding.
- Poor maintenance of field channels and other facilities.

Need for Irrigation Modernization to improve Irrigation Performance

- Need to strike a balance between development activities, irrigation management reforms and capacity building of State/UT Irrigation Agencies.
- Improving water use efficiency.
- Imparting major thrust to EMR and CAD projects.

Census of MMI projects: Need of the hour

- In India, **irrigation is the largest user of the water** and likely to remain so for decades to come.
- Water resources development and management is therefore, largely dictated by the needs of irrigation
- Irrigation sector plays a critical role in agricultural growth and increasing farmer's income
- **For planning and policy formulation of this sector, a sound and reliable National/State level data base is a prerequisite.**

1st Census of MMI projects includes following steps

- Schedule for collection of data.
- Methodology of data collection
- Implementation mechanism

Schedule for Census of Major and Medium Irrigation Projects

S. No.	Identification Particulars	
1	Name of project	
2	Name of State	
3	Name of the district of Headworks	
4	Latitude Longitude of Headwork	
5	Nature of project (Irrigation / Multipurpose)	
6	Category of project (Major, Medium)	
7	Name of River/ Tributary	
8	Name of the River basin	
9	Type of project (storage, diversion, lift, combination of three, other)	
10	Type of project (Surface flow, Lift irrigation)	
11	Project Authority	
12	Gross Command Area (GCA) in Th Ha	
13	Culturable Command Area (CCA) in Th Ha	
14	Area in Th Hectares in case of Piped Distribution Network	
15	Ultimate Irrigation Potential (UIP) in Th Ha	7

Schedule for Census of Major and Medium Irrigation Projects

S. No.	Identification Particulars		
16	Season wise irrigation potential created (IPC) in Th Ha	i. Khariff	
		ii. Rabi	
		iii. Bi Seasonal	
		iv. Perennial	
		v. Summer season (Zaid)	
		vi. Others	
		Total IPC	
17	Season wise irrigation potential utilized (IPU) in Th Ha	i. Khariff	
		ii. Rabi	
		iii. Bi Seasonal	
		iv. Perennial	
		v. Summer season (Zaid)	
		vi. Others	
		Total IPU	
18	Districts benefitting from the project	i.	ii.
		iii.	iv.
		v.	vi. 8

Schedule for Census of Major and Medium Irrigation Projects

S. No.	Identification Particulars		
19	Whether the command area of the project is benefitting the area under Drought Prone Area Programme (DPAP), Desert Development Programme (DDP), Tribal area, Flood prone area, left wing extremism affected area, Koraput, Bolangir and Kalahandi (KBK) regions of Odisha, Vidarbha & Marathwada regions of Maharashtra and Bundelkhand region of Madhya Pradesh & Uttar Pradesh (If yes, Please provide the following information :)		
	i. Area under Drought Prone Area Programme (DPAP) as a percentage of CCA.		
	ii. Area under Desert Development Programme (DDP) as a percentage of CCA.		
	iii. Tribal area as a percentage of CCA		
	iv. Flood prone area as a percentage of CCA.		
	v. Left wing extremism affected area as a percentage of CCA.		
	vi. Area under Koraput, Bolangir and Kalahandi (KBK) regions of Odisha as a percentage of CCA.		
	vii. Area under Vidarbha & Marathwada regions of Maharashtra as a percentage of CCA		
	viii. Area under Bundelkhand region of Madhya Pradesh & Uttar Pradesh as a percentage of CCA.		
20	Approval status: (Central TAC/IC/UA) - Yes/No, (If approved, Please provide dates of the following clearances:)		
	i. Date of Central TAC clearance:		
	ii. Date of investment clearance:		
	iii. Environment Clearance (Latest):	(Stage I)	9
		(Stage II)	

Schedule for Census of Major and Medium Irrigation Projects

S no.	Identification Particulars					
	iv. Forest Clearance					
	v. NBWL Clearance					
21	Salient Features of the project:					
	i. Nature of head works(Dam/Barrage/Weir)					
	ii. Type of structure (Concrete / Masonry / Earth &Rock fill)					
	iii. Length of Dam/Barrage/Weir (meters)					
	iv. Maximum height of the structure above deepest foundation (Dam/Barrage/Weir) (meters)					
	v. Gross Storage capacity (MCM) at FRL					
	vi. Live Storage capacity (MCM) at FRL					
	vii. Dead Storage capacity (MCM) at FRL					
	viii. Catchment area of the reservoir/pond in Km ²					
	ix. FRL (in meter above msl)					
	x. MWL (in meter above msl)					
	xi. MDDL (in meter above msl)					
	xii. Length of Canal system (m)	Type of Canals	Unlined	Lined	PDN	Total
		Main Canal				
		Branch Canal				
		Distributary				10

Schedule for Census of Major and Medium Irrigation Projects

S no.	Identification Particulars			
	xiii. Design Discharge (m ³ /Sec) of each canal system (main canals)	LBC 1		
		LBC 2		
		RBC 1		
		RBC 2		
22	Water Utilization for various sectors in MCM (Irrigation and others viz Hydro/ Drinking Industrial, etc.	i. Irrigation		
		ii. Drinking		
		iii. Others		
		Total		
23	Whether scope of the project has been increased by ERM (Yes/No)			
	If Yes, name and year of start and completion of the ERM(s) work.	Name	Start Year	Completion Year
		i.		
		ii.		
24	Whether project is inter-state-Yes/No (if yes, Name of the other States)			i.
				ii.

Schedule for Census of Major and Medium Irrigation Projects

S no.	Identification Particulars		
			iii.
			iv.
25.	Whether inter basin transfer is involved (if yes) Name of the basins involved.		i.
			ii.
26.	Has the Project taken over the command of any other project (Yes/No)		
27.	If yes, list the projects and area of overlap.	Name of Project	Area of overlap (th. Ha)
		i.	i.
		ii.	ii.
		iii.	iii.
28.	Status of the Project (Whether completed/ongoing)		
29.	If ongoing	Physical Progress (%)	
		Financial Progress (%)	
30.	Year of commencement of the project		
31.	Year of completion of the project		
32.	Latest estimated cost of Project (Rs Crore), Price level (For ongoing)		12

Schedule for Census of Major and Medium Irrigation Projects

33.	Final cost of the completed project (Rs. Crore) with price level		
34.	Cost of OM during the year (Rs. Crore)		
35.	Methods of irrigation as envisaged in DPR		
36.	Whether Command Area Development (CAD) has been executed (Yes/No)		
37.	If Yes, please provide the area in Th Ha	Area of CAD Work executed from State Govt. Funding.	
		Area covered under CADWM Scheme of DoWR, RD & GR, GoI.	
38.	Area covered under micro irrigation (Th Ha)		
39.	Number of WUA former		
40.	Area covered under WUA (Th Ha)		
41.	Numbers of members in WUA's registered.		
	i. SC		i. Male
	ii. ST		ii. Female
	iii. OBC		iii. Transgender
	iv. General		Total
	Total		

Methodology for the data collection

- For implementation of the MMI Census, each State / UT Administration would **identify a Nodal Department for enumeration** of statistics for the State / UT.
- The Nodal Department would preferably be the State's Water Resource Department or Irrigation Department.
- The **head of the Nodal Department** would be designated as '**Census Commissioner**' and would be the in-charge of complete census work.
- For the census, **State Statistical Cells would be created in the Nodal Department** which would assist in organizing, coordinating and supervising the MMI Census.
- For enumeration of some data points like actual utilization of irrigation potential or season wise breakups of utilization etc. the **Village Accountants / Lekhpals or Patwaris / Girdavar / Revenue official or any other official designated by the State/UT Government may also be involved.**
- In this regard, **State Level Coordination Committee will issue suitable directions to the concerned Revenue Department.** The schedules of enquiry along with instructions / guidelines for filling them shall be provided by MI (Stat.) Wing, DoWR, RD & GR to the States.
- The **data of Irrigation Potential Utilized Season wise shall be collected by enumerators/J.E.s of the Project from the Village Accountants/Lekhpals or Patwaris/Girdwars/Revenue officials** or any other officials designated by the State/UT Government as per the need.

Methodology for the data collection

- The work of supervision will be entrusted to higher supervisor level officers of the project authority. The immediate supervisory officer / Assistant Engineer will have to do 100% test check of the data to ensure the correctness of the data collection.
- However, the overall quality of field work is to be monitored by Divisional Level (Ex. En. of the project) State Officers. Further, 25% of the data will be scrutinized by the concerned Executive Engineer (Ex. En.).
- Thereafter, Superintending Engineer (S.E.) Level Officer will validate the complete data entered.
- The data of a project has to be validated by the concerned S.E. and to be finally submitted by the concerned Chief Engineer (C.E.).
- After the completion of enumeration, entry, scrutiny & validation of the data filled in, C.E. of the Project will submit the entered data to the State Nodal Office with a copy to MI (Stat.) wing, DoWR, RD & GR.
- For processing of the data, a web based online software developed by NIC shall be used for data validation and tabulation etc.
- For all the MMI projects, the photographs of reservoir/dam/barrage/head works are to be captured by enumerator by smart phone along with its latitude and longitude and uploaded on the online software/app

Implementation mechanism

1. National Level Steering Committee

- To monitor the progress of the scheme in different States / UTs and to guide and sort out the major technical issues arising in implementation of the MMI Census, a Steering Committee comprising representatives from different Departments has been constituted at the DoWR, RD & GR, Ministry of Jal Shakti.
- The Committee is chaired by the Secretary DoWR, RD & GR with members from MI(Stat) Wing, Central Water Commission, SPR Wing, NIH Roorkee and National Informatics Centre (NIC).

2. Technical Sub-Committee

- A Technical Sub-Committee will be formed under the Chairmanship of Regional Chief Engineer of CWC, in charge of the State, to provide technical inputs and guide the State Cell during the census operations.

Way forward

- Comments /feedback on the Schedule for Census of Major and Medium Irrigation Projects shall be sought from all nodal officers of different states.
- Thereafter, a final Schedule for Census of Major and Medium Irrigation Projects shall be prepared and circulated to all the States/UTs and timelines will be defined for further course of action in the matter.
- A mobile app shall be developed for capturing the data as per schedule.

Thanks