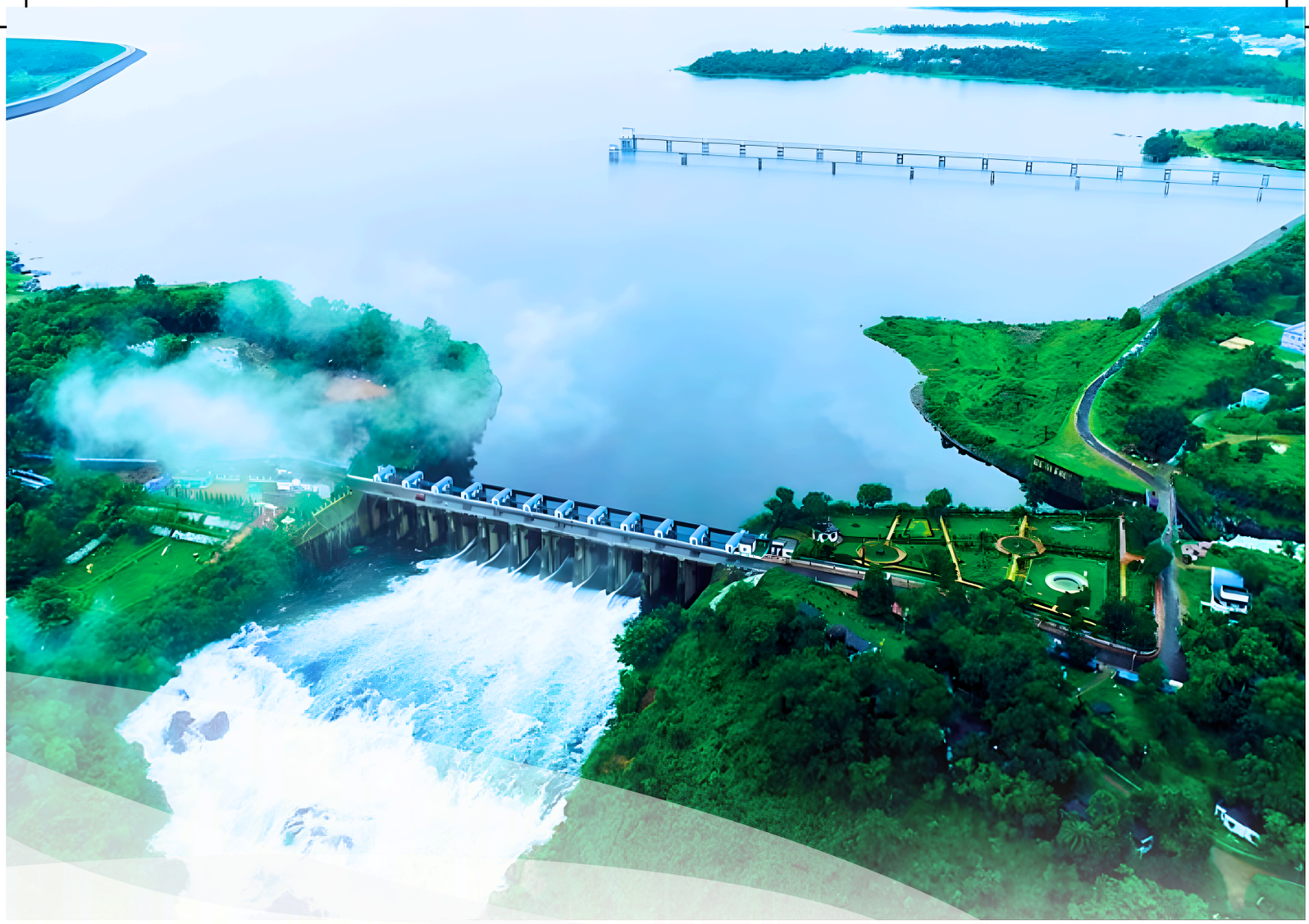


सत्यमेव जयते

वृहद एवं मध्यम सिंचाई परियोजनाओं की प्रथम गणना रिपोर्ट

FIRST MMI PROJECTS CENSUS REPORT

Volume II

Bihar, Chhattisgarh, Goa, Himachal Pradesh, Gujarat, Kerala, Ladakh, Manipur, Rajasthan, Tripura, Uttarakhand, and West Bengal

भारत सरकार
GOVERNMENT OF INDIA
जल शक्ति मंत्रालय
MINISTRY OF JAL SHAKTI
जल संसाधन, नदी विकास और गंगा संरक्षण विभाग
DEPARTMENT OF WATER RESOURCES, RIVER DEVELOPMENT AND GANGA REJUVENATION

First MMI Census Report

Volume II

(Bihar, Chhattisgarh, Goa, Himachal Pradesh, Gujarat, Kerala, Ladakh, Manipur, Rajasthan, Tripura, Uttarakhand, and West Bengal)



Government of India
Ministry of Jal Shakti
Department of Water Resources, River Development and Ganga Rejuvenation
Minor Irrigation (Statistics) Wing

सी आर पाटील
C R Paatil



सत्यमेव जयते

जल शक्ति मंत्री
भारत सरकार
Minister of Jal Shakti
Government of India

Message

Water is central to agricultural growth, food security, and sustainable development. In a country where irrigation remains the largest user of water, Major and Medium Irrigation (MMI) Projects form the backbone of surface water management and agricultural productivity. These projects, defined on the basis of Culturable Command Area (CCA), play a critical role in bridging the gap between Irrigation Potential Created (IPC) and Irrigation Potential Utilized (IPU), while also serving multipurpose objectives such as flood moderation, drinking water supply, and hydropower generation.

Recognizing the need for a comprehensive and reliable national database on MMI projects, the Department of Water Resources, River Development and Ganga Rejuvenation, Ministry of Jal Shakti, has undertaken the 1st Census of Major and Medium Irrigation Projects in convergence with the 7th Minor Irrigation Census, 2nd Census of Water Bodies, and the 1st Census of Springs in April 2025. The census covers all States and Union Territories and is being conducted entirely in digital mode through a dedicated web-based platform.

On the occasion of World Water Day, we are pleased to release the report of the 1st Census of Major and Medium Irrigation Projects for the twelve early-completing States and Union Territory—Bihar, Chhattisgarh, Goa, Himachal Pradesh, Gujarat, Kerala, Ladakh, Manipur, Rajasthan, Tripura, Uttarakhand, and West Bengal. The timely completion of census activities by these States reflects commendable administrative coordination and technical diligence.

The sincere and dedicated efforts of these States are commendable and are expected to inspire other States to complete the census in a timely manner. This initiative will significantly contribute to strengthening data-driven planning, policy formulation, and decision- water resources sector.

C R PAATIL

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Message

Water sustains agriculture, livelihoods, and economic stability. Major and Medium Irrigation Projects, categorized on the basis of Culturable Command Area, constitute vital infrastructure for ensuring assured irrigation, stabilizing crop production, and enhancing resilience against climatic variability.

The 1st Census of Major and Medium Irrigation Projects represents a significant advancement in strengthening India's irrigation statistics framework. Conducted with reference year 2023–24, the census provides complete enumeration of both completed and ongoing MMI projects across the country. It integrates pre-populated data from the national register with field validation, structured scrutiny, GIS-based mapping, and multi-tier approval mechanisms to ensure data accuracy and reliability.

For the first time, the census has been implemented in a fully digital and paperless mode, enabling real-time monitoring through dashboards and streamlined validation processes. The standardized schedule captures critical parameters such as irrigation potential, season-wise utilization, storage capacity, canal systems, lift irrigation components, inter-basin transfers, environmental clearances, and participatory irrigation management structures.

The release of this report for the twelve early-completing States/Union Territories—Bihar, Chhattisgarh, Goa, Himachal Pradesh, Gujarat, Kerala, Ladakh, Manipur, Rajasthan, Tripura, Uttarakhand, and West Bengal—on World Water Day underscores the importance of robust irrigation data in advancing sustainable water governance.

I commend the dedicated efforts of State Governments, project authorities, engineers, and field functionaries who have contributed to the successful conduct of this pioneering census. The insights generated will significantly support data-driven governance in the water resources sector.

(Dr. Raj Bhushan Choudhary)

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Secretary

सत्यमेव जयते

भारत सरकार
जल शक्ति मंत्रालय
जल संसाधन, नदी विकास
और गंगा संरक्षण विभाग
GOVERNMENT OF INDIA
MINISTRY OF JAL SHAKTI
DEPARTMENT OF WATER RESOURCES,
RIVER DEVELOPMENT & GANGA REJUVENATION



FOREWORD

The Department of Water Resources, River Development and Ganga Rejuvenation has been conducting the Census of Minor Irrigation structures on a quinquennial basis since 1986– 87, thereby creating a robust statistical foundation for irrigation planning. In line with the recommendations for expanding the scope of the Centrally Sponsored Scheme "Irrigation Census," the Department has undertaken the 1st Census of Major and Medium Irrigation (MMI) Projects in April 2025.

Major and Medium Irrigation Projects, defined based on Culturable Command Area thresholds, are critical assets in India's irrigation landscape. These projects involve substantial storage reservoirs, diversion structures, canal networks, and in many cases multipurpose functionalities. Despite their importance, the absence of a standardized national database had limited comprehensive performance assessment and planning. The present census addresses this gap.

The census has been designed with clearly defined concepts and definitions covering Gross Command Area (GCA), CCA, Ultimate Irrigation Potential (UIP), Irrigation Potential Created (IPC), Irrigation Potential Utilized (IPU), storage parameters, canal lengths, lift components, Command Area Development works, and Water Users' Associations. The methodology incorporates a structured hierarchy of State Nodal Officers and project-level functionaries, multi-stage scrutiny and validation, and real-time progress monitoring through a web-based application developed with the support of the National Informatics Centre. The census also utilizes pre-populated project data from the Central Water Commission to ensure consistency and completeness.

This publication presents key findings from twelve early-completing States and Union Territory—Bihar, Chhattisgarh, Goa, Himachal Pradesh, Gujarat, Kerala, Ladakh, Manipur, Rajasthan, Tripura, Uttarakhand, and West Bengal. Their proactive participation and adherence to timelines have enabled the timely release of this report on World Water Day.

I am confident that the database and analytical insights generated through the 1st MMI Projects Census will significantly strengthen irrigation performance assessment, facilitate bridging of IPC–IPU gaps, support efficient water allocation, and enhance evidence-based planning in the water resources sector.

(V. L. Kantha Rao)

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सत्यमेव जयते

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जल संसाधन, नदी विकास
और गंगा संरक्षण विभाग
GOVERNMENT OF INDIA
MINISTRY OF JAL SHAKTI
DEPARTMENT OF WATER RESOURCES,
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PALLY KUNDU
Additional Director General
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Preface

The First Census of Major and Medium Irrigation (MMI) Projects marks a significant milestone in strengthening India's irrigation database and water resource governance framework. While the Department of Water Resources, River Development and Ganga Rejuvenation, Ministry of Jal Shakti, has been conducting the Minor Irrigation Census on a quinquennial basis since 1986–87, the inclusion of Major and Medium Irrigation Projects under the Centrally Sponsored Scheme "Irrigation Census" represents an important expansion in scope and vision.

Major and Medium Irrigation Projects, defined on the basis of Culturable Command Area (CCA), constitute the backbone of surface irrigation infrastructure in the country. These projects not only create substantial irrigation potential but also support multipurpose objectives such as flood moderation, drinking water supply, hydropower generation, and industrial use. A comprehensive and reliable national database covering parameters such as Gross Command Area (GCA), CCA, Ultimate Irrigation Potential (UIP), Irrigation Potential Created (IPC), Irrigation Potential Utilized (IPU), storage characteristics, canal systems, lift components, Command Area Development (CAD), and Water Users' Associations (WUAs) is essential for evidence-based planning and improved water use efficiency.

The 1st MMI Census, launched in April 2025 has been undertaken in full digital mode through a dedicated web portal developed with the support of the National Informatics Centre. The census leverages pre-populated data from the National Register of MMI Projects prepared by the Central Water Commission, supplemented by structured field validation, multi-tier scrutiny, GIS-based mapping, and real-time dashboard monitoring. The well-defined hierarchy of State Nodal Officers and Project-level functionaries has ensured systematic data collection, validation, and finalization.

On the occasion of World Water Day, we are pleased to release the report of the First Census of Major and Medium Irrigation Projects for the **twelve** early-completing States and Union Territory—**Bihar, Chhattisgarh, Goa, Himachal Pradesh, Gujarat, Kerala, Ladakh, Manipur, Rajasthan, Tripura, Uttarakhand, and West Bengal.** Their timely completion of field work, validation, and submission reflects strong institutional commitment and coordinated efforts at multiple administrative levels.

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The findings presented in this report provide valuable insights into irrigation potential, utilization patterns, project design features, water distribution systems, and participatory irrigation management structures. The database generated through this census will serve as a critical input for policy formulation, performance assessment, resource optimization, and long- term strategic planning in the irrigation and water resources sector.

I place on record my appreciation for the dedicated efforts of the State Governments, project authorities, technical officers, officials from MI(Stat), CWC and all stakeholders who have contributed to this pioneering initiative. It is our expectation that the successful completion of the census in these States will motivate others to finalize their activities expeditiously, thereby enabling the creation of a comprehensive national repository of Major and Medium Irrigation Projects.

(Pally Kundu)

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ABBREVIATIONS AND ACRONYMS

CAD	Command Area Development
CCA	Culturable Command Area
CWC	Central Water Commission
DDP	Desert Development Programme
DHARMA	Dam Health and Rehabilitation Monitoring Application
DoWR, RD & GR	Department of Water Resources, River Development and Ganga Rejuvenation
DPAP	Drought Prone Area Programme
DSL	Dead Storage Level
ERM	Extension, Renovation & Modernization
FRL	Full Reservoir Level
GCA	Gross Command Area
GIS	Geographic Information System
Ha	Hectare
IC	Investment Clearance
IPC	Irrigation Potential Created
IPU	Irrigation Potential Utilized
MCM	Million Cubic Meter

MDDL	Minimum Draw Down Level
MI Stat Wing	Minor Irrigation Statistics Wing
MoJS	Ministry of Jal Shakti
MMI	Major & Medium Irrigation
MWL	Maximum Water Level
msl	Mean Sea Level
NBWL	National Board for Wildlife
NRLD	National Register of Large Dams
OBC	Other Backward Caste
PIN	Piped Irrigation Network
SC	Scheduled Caste
ST	Scheduled Tribe
TAC	Technical Advisory Committee
UIP	Ultimate Irrigation Potential
UT	Union Territory
WUA	Water Users Association

General Background

1. Introduction

Irrigation has been a crucial component of India's agricultural development, evolving from traditional tank systems and colonial-era canals to large multipurpose river valley projects and modern micro-irrigation technologies. Organized irrigation development began during British rule with major canal systems such as the Upper Ganga Canal (1854), Western Yamuna Canal (1820), and Upper Bari Doab Canal (1859) primarily aimed at enhancing land revenue through assured irrigation. The First Irrigation Commission (1901–03) further accelerated irrigation expansion.

After Independence, irrigation development became a national priority under the Five-Year Plans. Large multipurpose projects such as the Bhakra Nangal Dam (Punjab,1960), Hirakud Dam (Odisha, 1957), Nagarjuna Sagar Dam (AP/Teangan), Sardar Sarovar Dam(Gujarat), and Indira Gandhi Canal (rajasthan) significantly expanded irrigation coverage, contributing to food security and supporting the Green Revolution.

As per Land Use Statistics, India's total geographical area is about 328 million hectares. The Net Sown Area is approximately 140–142 million hectares, of which about 75-79 million hectares is net irrigated. The Gross Cropped Area is around 220 million hectares, with gross irrigated area exceeding 120 million hectares. Nearly 48–50% of the net sown area is irrigated, while the remaining area depends on monsoon rainfall. Groundwater sources (tube wells and wells) contribute nearly half of total irrigation, alongside canals and other sources.

The Ultimate Irrigation Potential (UIP) of the country is estimated at about 140 million hectares. In recent years, emphasis has shifted towards water-use efficiency through micro-irrigation (drip and sprinkler systems), schemes like PMKSY. River interlinking initiatives and command area development programs are also being pursued to enhance water availability and equitable distribution for irrigation and other purposes. In order to meet the requirements of planning and policy formulation of this sector, a sound and reliable national data base is a prerequisite.

Since irrigation projects are planned and managed by State Governments, creating a consolidated national database for Major and Medium Irrigation (MMI) projects has been challenging. To address this gap, it was decided to expand the scope of the Centrally Sponsored Scheme "Irrigation Census" to include the 1st Census of Major and Medium Irrigation (MMI) projects along with 7th Minor Irrigation (MI) Scheme Census, 2nd water Bodies (WB), Census and 1st Spring Census.

2. *Classification of Irrigation Project*

Irrigation Projects are classified based on Culturable Command Area (CCA) as follows:

i. Major Irrigation Projects: The Projects having Culturable Command Area (CCA) more than 10000 hectares (CCA>10,000 ha). This type of project consists huge storage reservoirs, flow diversion structures and a large network of canals.

ii. Medium Irrigation Projects: Projects having CCA more than 2,000 ha and up to 10,000 Ha are classified as medium irrigation projects. These are also multi-purpose surface water projects. Medium size storage, diversion and distribution structures are the main components of this type of project.

iii. Minor Irrigation Projects: Projects having CCA less than or equal to 2,000 ha are termed as minor irrigation project

3. *Scope & Coverage*

The 1st Census of MMI Projects is conducted in whole of India including Union Territories.

4. *Frame of the Census*

The frame of the census is all completed MMI projects in the country run by both Central and State Governments which is taken from the "National Register of MMI projects in India" recently published by Central Water Commission.

5. Definitions

a. **Gross Command Area (GCA):** The total geographical area which can normally be commanded or serviced from an irrigation project without consideration of water supplies available for irrigation.

b. **Culturable Command Area (CCA):** The gross command area less the non-culturable land.

c. **Cultivable Area:** It consists of net area sown in the command, current fallow, fallow lands, other than current fallow, culturable waste and land under miscellaneous tree crops.

d. **Gross Irrigated Area:** The area irrigated under various crops during a year in a command, counting the area irrigated under more than one crop during the same year as many times as the number of crops grown and irrigated.

e. **Net Irrigated Area**: An area in a command may be irrigated only once a year or multiple times during various seasons of a year. It is aggregate of the area irrigated once a year and area irrigated multiple times counting it as once is net irrigated area.

f. **Ultimate irrigation potential (UIP):** Maximum area (Gross) identified for irrigation from available water resources. This area is aggregate of area planned to be irrigated once a year and planned to be irrigated multiple times counting it as many times as irrigated during a year.

g. **Irrigation Potential Created (IPC):** Gross irrigation that can be achieved through the works completed at a particular time.

h. **Irrigation Potential Utilized (IPU):** The gross area actually irrigated during reference year of the census out of the IPC already created.

i. **Kharif season**: Kharif crops are cultivated in the monsoon season. Maize, rice, small millets, peas, groundnut, cotton, sesame etc. are the principal kharif crops.

j. **Rabi season**: Rabi crops are cultivated in the winter season. Wheat, barley, gram, peas, potatoes, mustard etc. are the Rabi Crops.

k. **Bi seasonal**: The Crops which last during two crop seasons is the Bi Seasonal.

l. **Summer season**: Often represents an intermediate (third) crop between the Rabi and Kharif crops i.e Zaid crops etc.

m. **Perennial crop**: Crops which last several crop years like plantation or orchard crops.

n. **Micro Irrigation Systems**: Micro irrigation system comprises of Drip Irrigation, Sprinkler Irrigation, Jet, Micro-Sprinkler, Porous Pipe, Rain Gun Systems with drip irrigation and sprinkler irrigation being the most common.

o. **Sprinkler Irrigation system**: Sprinkler Irrigation is a method of applying irrigation water which is similar to rainfall. Water is distributed through a system of pipes usually by pumping. It is then sprayed into the air of entire soil surface through spray heads so that it breaks up into small water drops which fall to the ground.

p. **Drip Irrigation System**: It comprises the application of water in drops close to the plants. The entire space between the plants is not watered.

q. **Piped Irrigation System**: A Piped Irrigation Network (PIN) is a network of installation consisting of pipes, fittings such as valves, pumps (if necessary) and other devices

properly designed and installed to supply water from the source of the water to the irrigable area.

r. **River Basin**: River basin is defined as a geographical area (catchment area) determined by the watershed limits of a water system flowing into a common terminus.

s. **Catchment Area**: The area from which runoff flows into river, reservoir, etc.

t. **Lift Irrigation**: Lift Irrigation is a method of irrigation in which the water is lifted with Pumps and supplied for irrigation.

u. **Full Reservoir Level (FRL)** (in meter above MSL): It is the maximum level of the reservoir at which water is intended to be held for various uses.

v. **Maximum Water Level (MWL**): It is the maximum level to which the reservoir water will rise while passing the design flood with the spillway facility in full operation.

w. **Minimum Draw Down Level (MDDL**): It is the lowest level up to which the reservoir may be depleted for meeting various needs.

x. **Live Storage capacity**: Storage capacity between the Dead storage Level to full reservoir level.

y. **Dead Storage capacity:** Storage of the reservoir below the Minimum Draw Down level (MDDL).

z. **Multipurpose Project**: Multipurpose Project is designed, constructed and operated to serve two or more interests or purposes namely, flood control, hydro-electric power generation, navigation, irrigation, fisheries, public water supplies, recreation, etc.

6. Methodology:

For implementation of the MMI Project Census, each State/UT Administration i.e Chief Secretary/Secretary identified a State Nodal Department for enumeration of Statistics of Irrigation Projects. The State Nodal department is preferably the State's Water Resource Department or Irrigation Department.

To ensure smooth execution of census work, State Nodal Department in State / UT's designated a State Nodal Officer i.e Engineer in Chief / Chief Engineer / head of the Department. As the data of the Census was collected project-wise hence, the State Nodal Officer further designated a project wise Nodal officers (Level I) who were one level down in hierarchy i.e Chief Engineer-I/ Chief Engineer II or Managing Directors etc. for the respective projects. Nodal Officers (level I) further designated a project wise Nodal officers (level II) who were one level below in

hierarchy i.e Superintending Engineer-I / Superintending Engineer-II etc. for the respective projects. Nodal Officers (level II) further designated project-wise Nodal officers (level III) who were one level below in hierarchy i.e Executive Engineer I/ Executive Engineer-II etc. Nodal Officers (level III) further assigned each project to concerned project in-charge i.e Assistant Engineer / Junior Engineer for enumeration of data. He is responsible for coordinating and accomplishing the census work for that particular project. Nodal officer level may vary as per Hierarchy level of respective Nodal Department.

The project in-charge is responsible for enumerating the MMI projects in census. MMI Census data is collected through the project authorities as much as possible. But, for the data related with Irrigation Potential Utilized (IPU), WUA formed etc. the concerned village officers e.g. Patwaries, revenue officials and village level workers/Gram Pradhans etc. were involved. In this regard State Level Committee/Technical Sub Committee issued suitable directions to the concerned Revenue Department. For Irrigation Potential Utilized (IPU), the highest figure achieved so far is entered. Census is conducted completely in digital mode through web portal.

SCHEDULE FOR CENSUS OF MAJOR AND MEDIUM IRRIGATION PROJECTS

Part: 1

S No	Identification particulars		
1	Name of project *		
2	Name of State/UT *		
3	Districts benefitting from the project *	i.	ii.
		iii.	iv.
		v.	vi.
4	Name of the River basin: *		
5	Nature of project (Irrigation / Multipurpose) * If Multipurpose; please select from the followings: i) Irrigation ii) Hydro-Electric Power Generation, iii) Flood Control iv) Domestic and Industrial Water Supply v) Fisheries vi) Navigation vii) Recreation viii) Others.		
6	Gross Command Area (GCA) in Ha*		
7	Culturable Command Area (CCA) in Ha*		
8	Category of Irrigation Project (Major, Medium) *		
9	Whether project is inter-state– *		Yes/No
	if yes, name of the other states. please also provide the name of corresponding projects in respective states.	Name of State	Name of corresponding Project in the State.
		i	
		ii	
		iii	
10	Whether inter basin transfer is involved: [Yes/No] *		i.
	(if yes) Name of the basins involved		ii.
			iii.

Part: 2

11	Type of project (Storage, Diversion, Lift irrigation schemes & Combination of Storage lift or diversion).*				
12	Project Authority *				
13	Area in Hectares in case of Piped Distribution Network				
14	Ultimate Irrigation Potential (UIP) in Ha*				
15	Season wise irrigation potential created (IPC) in Ha *	Crop Season		As envisaged in DPR	As per actual
		i. Kharif			
		ii. Rabi			
		ii. Bi Seasonal			
		v. Perennial			
		v. Summer season (Zaid)			
		i. Others			
		Total IPC			
16	Season wise irrigation potential utilized (IPU) in Ha [Maximum potential utilized, so far] *	Crop Season			
		i. Kharif			
		ii. Rabi			
		ii. Bi Seasonal			
		iv. Perennial			
		v. Summer season (Zaid)			
		i. Others			
		Total IPU			
17	Existing cropping pattern in the command Area *	Crop Season	Name of Crop	Area under the crop (Ha)	
				As envisaged in DPR	As per actual
		i. Kharif	Crop 1		
			Crop 2		

		ii. Rabi	Crop 1		
			Crop 2		
		iii. Bi Seasonal	Crop 1		
			Crop 2		
		iv. Perennial	Crop 1		
			Crop 2		
		v. Summer season (Zaid)	Crop 1		
			Crop 2		
		vi. Others	Crop 1		
			Crop 2		
18	No. of villages benefitted*				
19	No. of people benefitted *				
	i. SC		i. Male	(xxxx/N.A)	
	ii. ST		ii. Female	(xxxx/N.A)	
	iii. OBC		iii. Transgender	(xxxx/N.A)	
	iv. General		Total		
	Total				
20	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 in Ha :)				
	Area under Drought Prone Area Programme (DPAP).				
	i. Area under Desert Development Programme (DDP).				
	ii. Tribal area.				
	iii. Flood prone area.				
	iv. Left wing extremism affected area.				
	v. Area under Koraput, Bolangir and Kalahandi (KBK) regions of Odisha.				

	vi. Area under Vidarbha & Marathwada regions of Maharashtra.	
	vii. Area under Bundelkhand region of Madhya Pradesh & Uttar Pradesh.	

Part:- 3

<table>
<tr><td rowspan="5">21</td><td colspan="3" rowspan="2">Approval status: Central TAC/IC/State Approved/ Un Approved. *
If approved, Please provide initial year& initial cost of the following clearances:</td><td></td></tr>
<tr><td>Cost (Rs Crore)</td><td>Year</td></tr>
<tr><td>i.</td><td colspan="2">Central TAC clearance:</td><td></td><td></td></tr>
<tr><td>ii.</td><td colspan="2">Investment Clearance (IC):</td><td></td><td></td></tr>
<tr><td>iii.</td><td colspan="2">State Govt Clearance</td><td></td><td></td></tr>
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<tr><td>(Stage II) (Year/N.A)</td><td colspan="2"></td></tr>
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<tr><td>(Stage II) (Year/N.A)</td></tr>
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<tr><td rowspan="8">23</td><td colspan="3">Status of the Project (Whether completed/ongoing) *</td><td colspan="2"></td></tr>
<tr><td rowspan="4">1.Completed</td><td colspan="2">Final cost of the completed project (Rs Crore)</td><td colspan="2"></td></tr>
<tr><td colspan="2">Price level</td><td colspan="2"></td></tr>
<tr><td colspan="2">Year of commencement of the project</td><td colspan="2"></td></tr>
<tr><td colspan="2">Year of completion of the project</td><td colspan="2"></td></tr>
<tr><td rowspan="3">2. Ongoing.</td><td colspan="2">Year of commencement of the project</td><td colspan="2"></td></tr>
<tr><td colspan="2">Physical Progress (%)</td><td colspan="2"></td></tr>
<tr><td colspan="2">Financial Progress (%)</td><td colspan="2"></td></tr>
<tr><td rowspan="2"></td><td colspan="2">Latest estimated cost of Project (Rs Crore)</td><td colspan="2"></td></tr>
<tr><td colspan="2">Price level</td><td colspan="2"></td></tr>
</table>

Part:- 4

24	Design Features of the project *		
	a) Whether the Project comprises of Head Works with Dam, Barrage weir or Gated Structure		
	b) If yes (Dam, Barrage,Weir, Gated Structure) , then No. of Head Works (Dam/Barrage/Weir)		
	1. Name of head works		
	i. Nature of head works (Dam/Barrage/Weir/ Gated Structure		If User select **"Gated Structure"** then sr .24 (vi) to 24. (xx) will disable.
	ii. Whether, the Dam/Barrage/Weir/ Gated Structure is included in the DHARMA portal. If "Yes", please make sure data entered here in this module is same as entered on the DHARMA portal for this Dam/Barrage/Weir and provide NRLD Code of the Dam		(Yes/No)
	iii. Name of River		
	iv. Name of the district of Headworks		
	v. Latitude, Longitude of Headworks		Option for selecting "Not available" Option of choosing "Not Applicable"
	vi. Type of Dam, Barrage or Weir (Concrete / Masonry / Earthern/ Rock fill/ combination)		
	vii. Length of Dam/Barrage/Weir (meters)	Type of Structure	
		(a) Concrete	(xxxx/N.A)
		(b) Masonry	(xxxx/N.A)
		(c) Earthen	(xxxx/N.A)
		(d) Rock fill	(xxxx/N.A)
		Total	
	viii. Maximum height of the structure above deepest bed level (Dam/Barrage/Weir) (in meters)		(xxxx/N.A)
	ix. FRL / Pond Level (in meter above msl)		(xxxx/N.A)
	x. MWL (in meter above msl)		(xxxx/N.A)

	xi. MDDL (in meter above msl)		Irrigation (in meter above msl)		(xxxx/N.A)	
			Power Generation (in meter above msl)		(xxxx/N.A)	
	xii. Design Gross Storage capacity (MCM) at FRL/ Pond Level				(xxxx/N.A)	
	iii. Design Live Storage capacity (MCM) at FRL/ Pond Level				(xxxx/N.A)	
	xiv. Design Dead Storage capacity (MCM)				(xxxx/N.A)	
	xv. Catchment area of the reservoir/pond in Km^2				(xxxx/N.A)	
	xvi. Area of submergence (Ha)				(xxxx/N.A)	
	vii. Number of projects affected families displaced.				(xxxx/N.A)	
	xviii. Number of projects affected people displaced.				(xxxx/N.A)	
	xix. Since Commissioning of the Project, how many times the reservoir has reached at FRL.				(xxxx/N.A)	
	xx. Since commissioning whether reservoir capacity survey has been conducted. (Yes/No)					
	If Yes, Year & Revised Live Storage Capacity (MCM)				Year	Revised Live Storage Capacity (MCM)
	xxi. Nos of main canals					
	xxii. Length of Canal system (m)	Type of Canals	Unlined	Lined	PDN	Total
		Main Canal				
		Branch Canal				
		Distributary				
		Minor Canals				
		Total				
	xiii. Design Discharge (m^3/sec) of each canal system (main canals)		Name of the canal		Design Discharge (m^3/Sec)	
			I.			

		II.		
		III.		
25	Number of Lifts in the Lift Irrigation Scheme and for the project with Lift Irrigation as component *			
	For Lift Irrigation Scheme and for the projects with Lift Irrigation as component. Please provide the following details:	Location of Pump House (District)		
		Latitude and Longitude of Pump House		
		Source of Lifting and its name.	River/ Reservoir/ Canal	Name of the Source
		Number of Pumps installed	For operation	Standby
		Total Capacity of pumps installed for operation in Horse Power (HP)		
		Head of the Lift in Meters.		

Part:- 5

26	Water Utilization for various sectors in MCM (Irrigation and others viz Hydro/ Drinking / Industrial, etc.) during the reference year of the Census *	Utilization head	Planned	Actual
		i. Irrigation		
		ii. Drinking & Industrial		
		ii. Others		
		Total		

27	Whether scope of the project has been increased by ERM (Yes/No) *													
	S. No.	Name of ERM Project	Original Year of Approval	Originally Approved by IC/TAC/ SA/UA	Original Approved Cost (Rs Crore)	Completion Year / Ongoing	Completion Cost (Rs Crore)	Ongoing		Additional			
								Latest Estimated Cost (Rs Crore)	Expenditure (Rs Crore)	CCA (Ha)	UIP (Ha)	IPC (Ha)	IPU (Ha)
	Total												

28	Has the Project taken over the command of any other project (Yes/No) *		
	If yes, list the projects and area of overlap	Name of Project	Area of overlap (Ha)
		i.	i.
		ii.	ii.
		iii.	ii.
29	Cost of O&M during the year (Rs Crore) *		
30	Methods of irrigation as envisaged in DPR*(Flood Irrigation, Drip or sprinkler)		
31	Area covered under micro irrigation (Ha) *e.g. Drip or sprinkler		
32	Whether Command Area Development (CAD) Work has been executed (Yes/No) *		
	If Yes, plz. provide the area	i. Area of CAD Work executed from State Govt Funding	

	in Ha	ii. Area covered under CADWM Scheme of DoWR RD&GR GoI.			
33	Whether WUAs have been formed: *				(Yes/No)
	i. Number of WUA formed				
	ii. Area covered under WUA (Ha)				
	iii. Numbers of members in the WUA's registered.				
	iv. Breakup of the Members				
	i. SC		i. Male	(xxxx/N. A)	
	ii. ST		ii. Female	(xxxx/N. A)	
	iii. OBC		ii. Transgender	(xxxx/N. A)	
	iv. General			Total	
	Total				

Part:- 6

34	Please upload the GIS based Index Map showing the Dam/Reservoir/River/Main Canal / Branch Canal System with command area.	
35	Please upload the high-resolution photographs of Project Head Works showing panoramic view.	

State Report

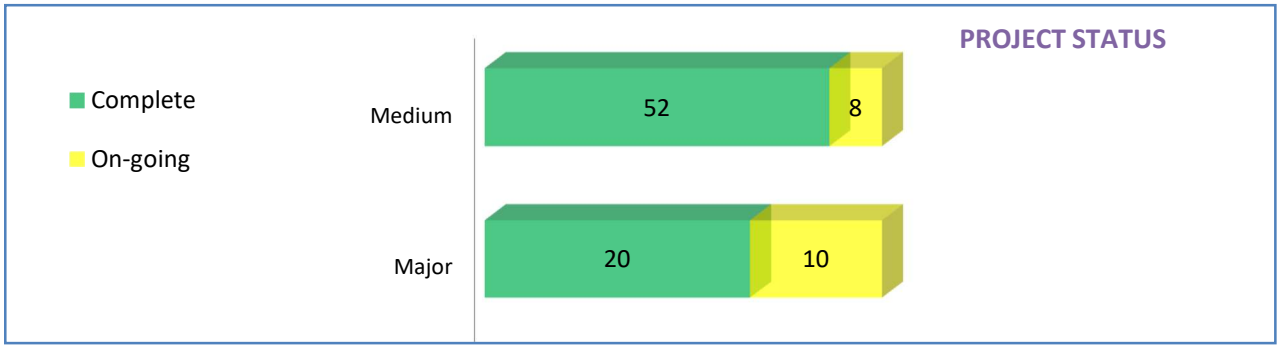
Bihar

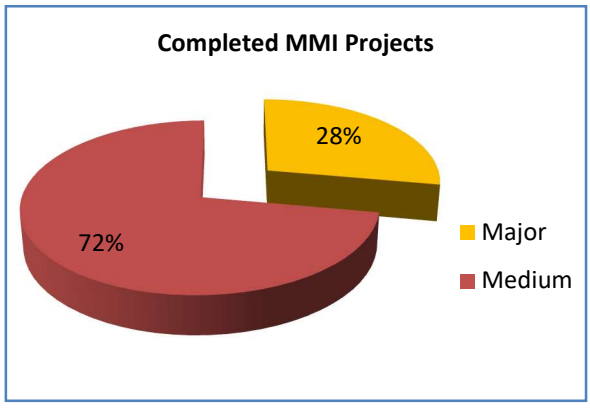
- The State of Bihar covers a total area of 94163 square kilometers. Total number of districts is thirty-eight.
- During the 1st Census of Major & Medium Irrigation (MMI) Projects, a total of **90** MMI projects were canvassed in Bihar. Out of these, **30** projects are categorized as Major projects and 60 projects fall under the Medium category.

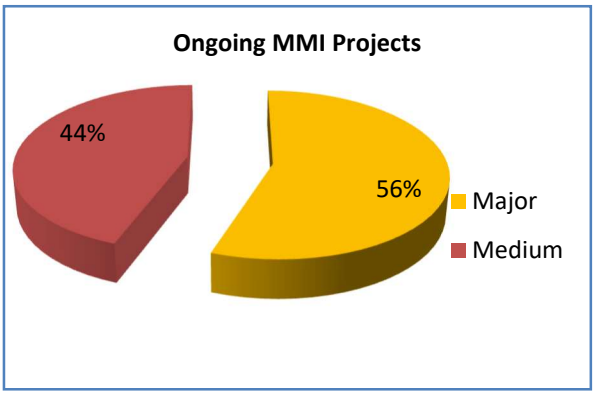
A. Completion Status

- Out of total 90 MMI projects, 72 are completed which includes 20 major and 52 Medium project. Remaining 18 projects are ongoing on which includes 10 Major and 08 Medium projects.

Chart 1: Distribution of Major and Medium Projects.







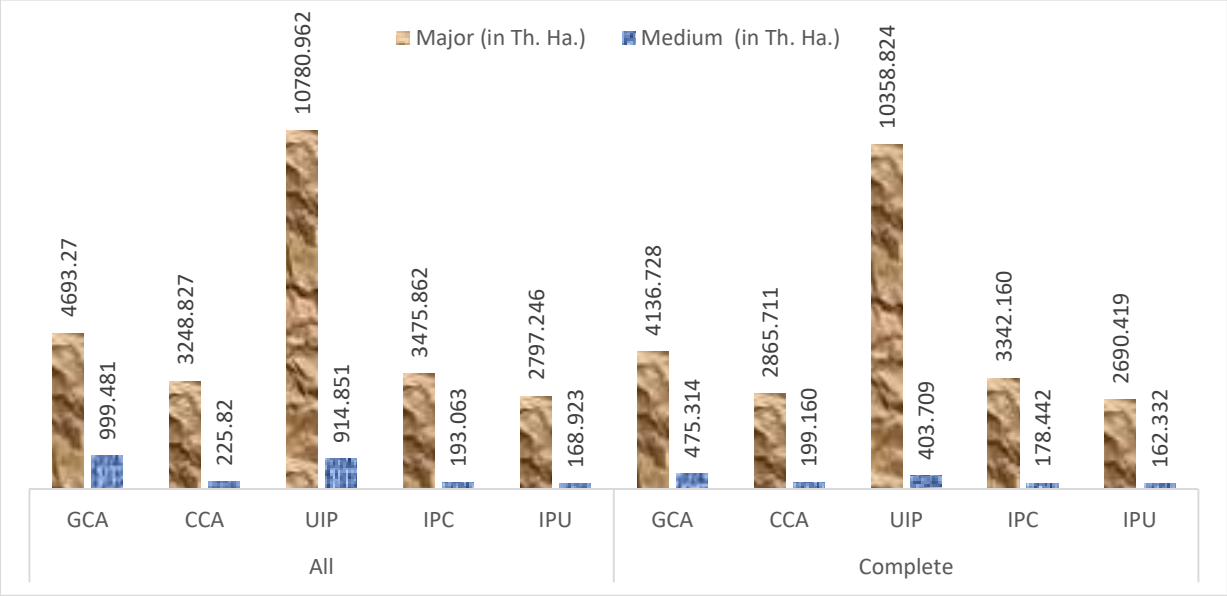
- Out of 30 Major Projects 26 are for irrigation and remaining are multipurpose while out of 60 Medium projects, 54 are exclusively for irrigation.

Table1: Nature of Project (number)

Nature of Project	Major	Medium
Irrigation	26	54
Multipurpose	4	6
Total	30	60

B. Coverage

Chart 2: Contribution of completed project in total project (in Th Ha)



- Above chart is showing that all complete projects are successfully contributing considering IPC and IPU. Irrigation potential utilized is more than 80% of Potential created for Major completed projects whereas it is more than 90% in case of Medium completed projects.

C. Type of Project

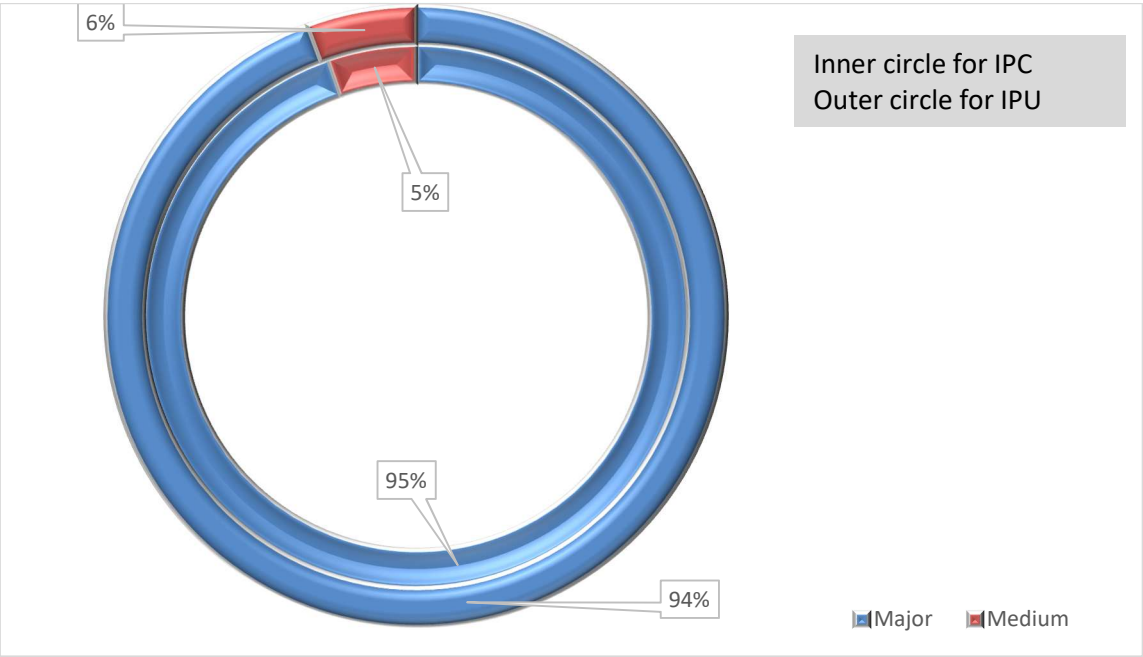
Table 2: Share of different type of project (number)

Project	Storage	Diversion	Lift irrigation	Storage & Diversion	Storage & Lift irrigation	Diversion & Lift irrigation	Storage & Diversion & Lift irrigation	Other	Total
Major	6	17	4	2	0	0	0	1	30
Medium	13	39	2	2	0	1	0	3	60
Total	19	56	6	4	0	1	0	4	90
Share	21%	62%	7%	4%	0%	1%	0%	4%	100%

- Above table is showing that 62% of all projects are of Diversion type and there is 21 % storage type irrigation system.

D. Project wise Irrigated Area

Chart 3: Contribution of project in Irrigated area



- Above chart is showing that in total irrigation potential utilization, Major projects are contributing more (94%).

E. Season wise Contribution of project in Irrigation

Table 3: Season wise utilization in Irrigation (in Th Ha)

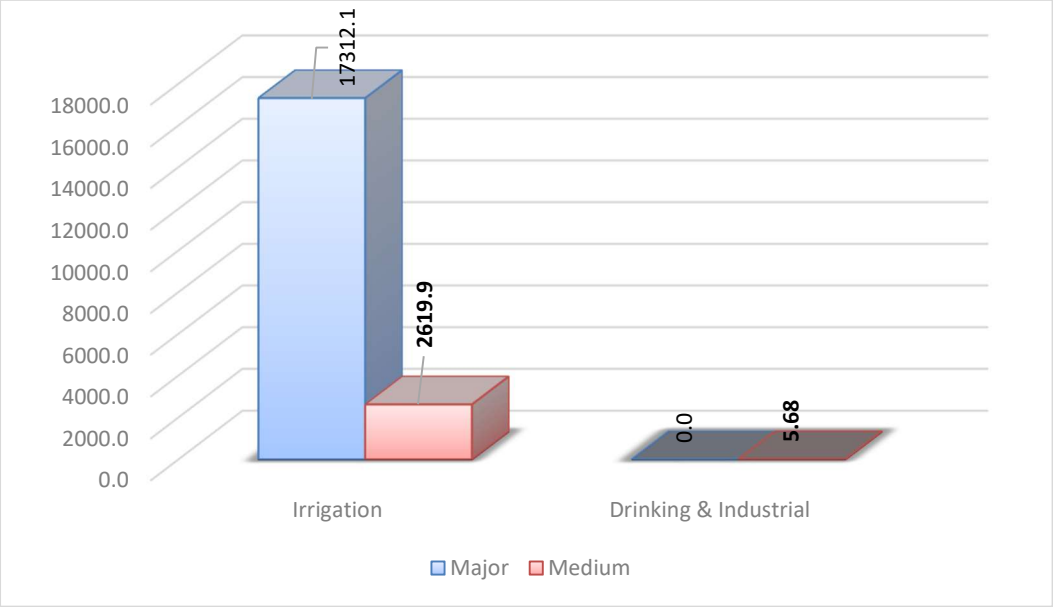
Project	IPU						
	Kharif	Rabi	Bi Seasonal	Perennial	Summer Season (Zaid)	Other	Total
Major	2112.54	681.99	0.20	0.20	0.20	2.12	2797.25
Medium	149.95	18.97	0.00	0.00	0.00	0.00	168.92
Total	2262.49	700.96	0.20	0.20	0.20	2.12	2966.17
Share	62%	19%	0%	0%	0%	0%	81%

- Again, these projects are utilizing for irrigation mostly during Kharif season. However, their utility is throughout the all seasons.

F. Water Utilisation

- In irrigation, as expected, water utilization from Major project for irrigation is more than that from Medium Projects.

Chart 4: Water Utilization from Major & Medium Irrigation Projects (in Mcm)



G. Associated Program

- Out of 30 Major projects, no project is under any program and out of 60 Medium projects only 01 is covered under some program. Area wise coverage is shown in table 5.

Table 4: Number of MMI Project under different program

Project	Total number of Project	No. of MMI Project Under Different Programs				
		Drought Prone Area Programme	Desert Development Programme	Tribal Area	Flood Prone Area	Left Wing Extremism Affected Area
Major	30	0				
Medium	60	1				

Table 5: Area under different program (in Th Ha)

Project	Area (in Th. Ha.) Under Different Programs				
	Drought Prone Area Programme	Desert Development Programme	Tribal Area	Flood Prone Area	Left Wing Extremism Affected Area
Major	0	0	0	0	0
Medium	1.889	0	0.400	0.300	0.100

H. Irrigation Method

- All 90 projects are using flood irrigation method for irrigation.

I. CAD, CADWM, WUA

- There are no projects covered under CAD area as shown below.
- 17 WUA was formed for 01 major project. No WUA was formed for Medium projects.

Table 6: CAD, CADWM and WUA wise Status of Projects

Projects	Total Number Project	Number With Methods of Irrigation			Details of WUA			
		Number of Project	Area of CAD Work Executed from State Govt Funding (in 000'ha)	Area Covered Under CADWM (in 000'ha)	Number of Project	Total Number of WUA Formed	Area Covered Under WUA (in 000'Ha)	Numbers of Members
Major	30	0	0	0	1	17	19.97	1654
Medium	60	0	0	0	0	0	0	0

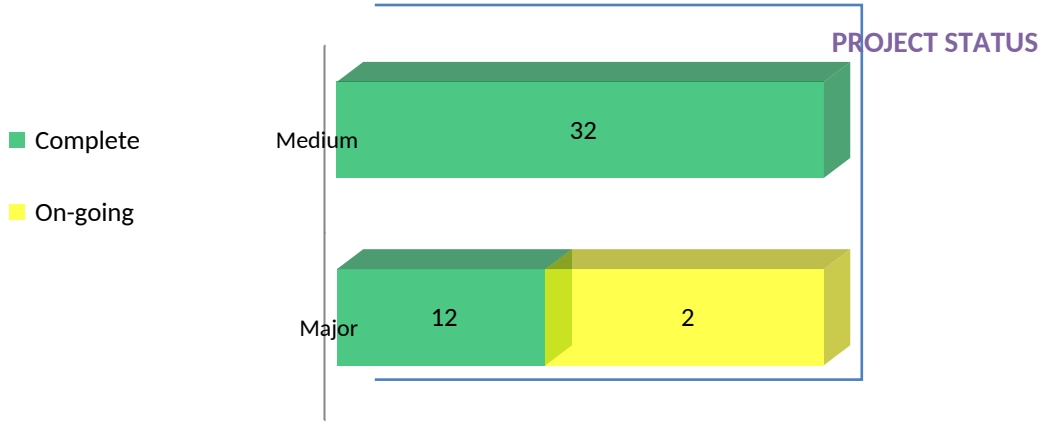
Chhattisgarh

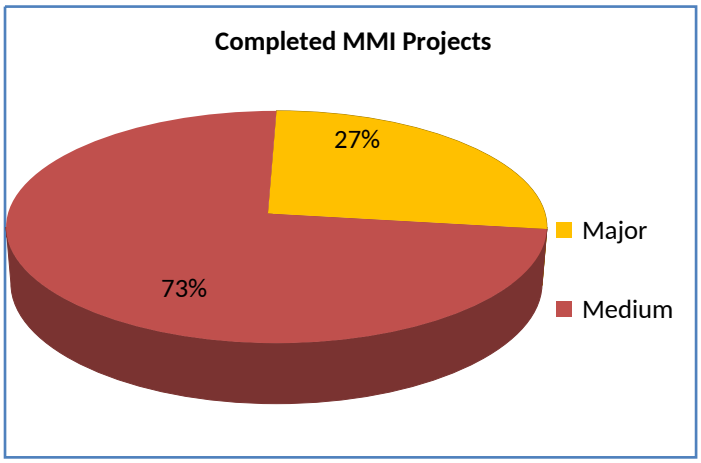
- The State of Chhattisgarh covers a total area of 1,35,192 square kilometers. Total number of districts is thirty-three.
- During the 1st Census of Major & Medium Irrigation (MMI) Projects, a total of **46** MMI projects were canvassed in Chhattisgarh. Out of these, 14 projects are categorized as Major projects and 32 projects fall under the Medium category.

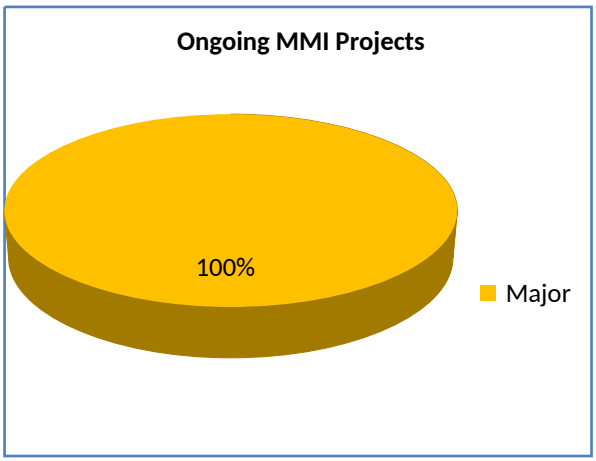
A. Completion Status

- Out of total **46** MMI projects, 44 are completed which includes 12 major and 32 Medium project. Remaining 02 major projects are ongoing.

Chart 1: Distribution of Major and Medium Projects.







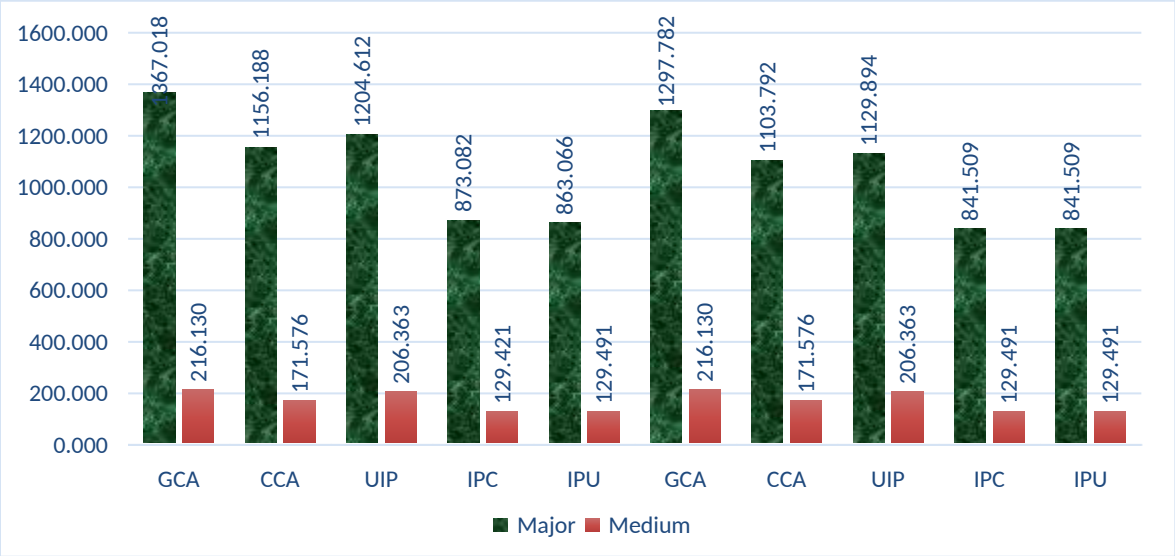
- Out of 14 Major Projects, 12 are for irrigation and 02 are for Multipurpose while out of 32 medium projects, 31 are for irrigation and 01 are for Multipurpose.

Table 1: Nature of Project (number)

Nature of Project	Major	Medium
Irrigation	12	31
Multipurpose	2	1
Total	14	32

B. Coverage

Chart 2: Contribution of completed project in total project (in Th. Ha.)



- Above chart is showing that all complete projects are successfully contributing considering IPC and IPU. Irrigation potential utilized is same as potential created for these completed projects.

C. Type of Project

Table 2: Share of different type of project (number)

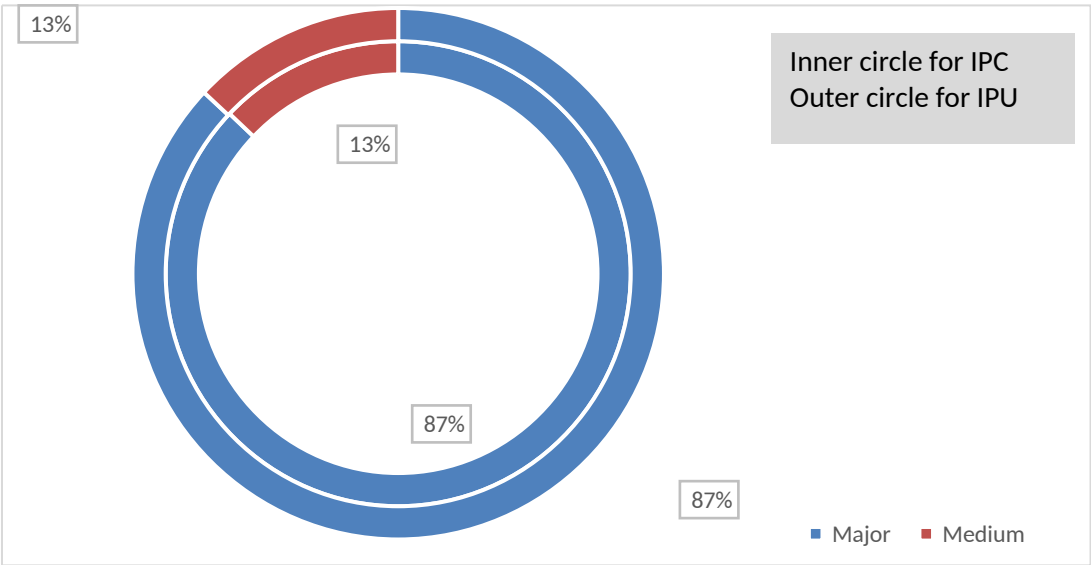
Nature of MMI project	Storage	Diversion	Storage & Diversion	Total
Major	12	1	1	14
Medium	29	3	0	32
Total	41	4	1	46

Share	89%	9%	2%	100%

- Above table is showing that 89% of all projects are of Storage & 9% Diversion type and there is no lift irrigation system.

D. Project wise Irrigated Area

Chart 3: Contribution of project in Irrigated area



- Above Chart is showing that in total irrigation potential utilization, Major irrigation projects are contributing more (87%) than Medium projects.

E. Season wise Contribution of project in Irrigation

Table 3: Season wise utilization in Irrigation (in Th Ha.)

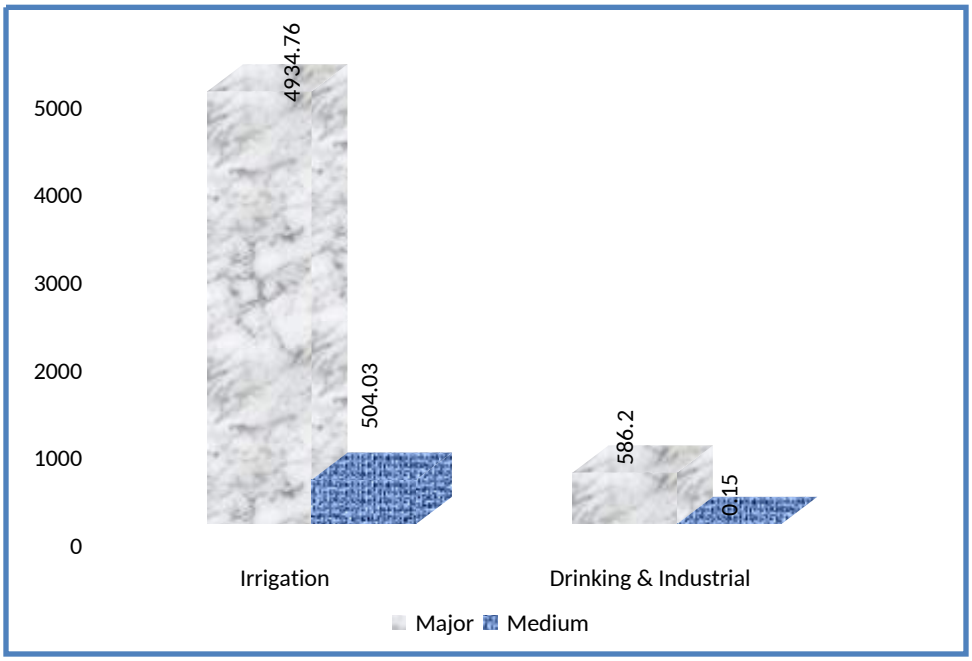
Projects	IPU		
	Kharif	Rabi	Total
Major	772.505	90.561	863.066
Medium	121.848	7.643	129.491
Total	894.353	98.204	992.557
Share	89%	10%	99%

- Again these projects are utilizing for irrigation mostly during Kharif season. However, these are also used for Rabi crops.

F. Water Utilisation

- In irrigation, water utilization from Major project are more than that from Medium Projects.

Chart 4: Water Utilization from Major & Medium Irrigation Projects (in Mcm)



G. Associated Program

- No project is under any program

H. Irrigation Method

- All 46 projects are using flood irrigation method.

I. CAD, CADWM, WUA

- There is no major and medium projects covered under CAD area and no WUA was formed for major and medium projects.

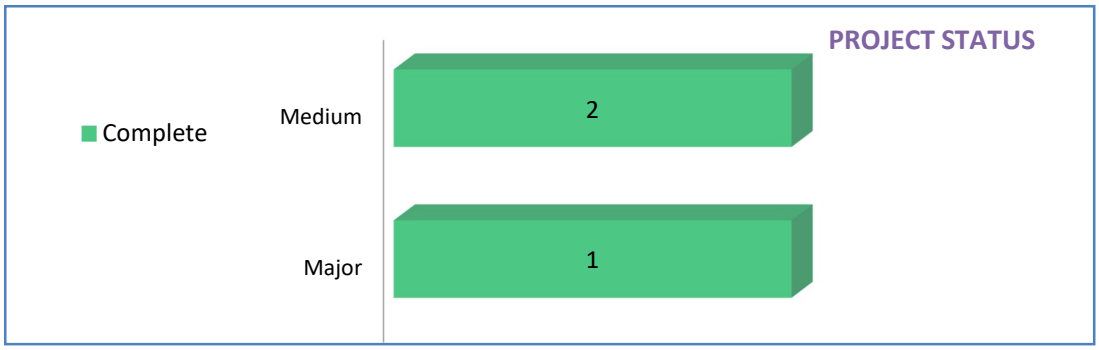
Goa

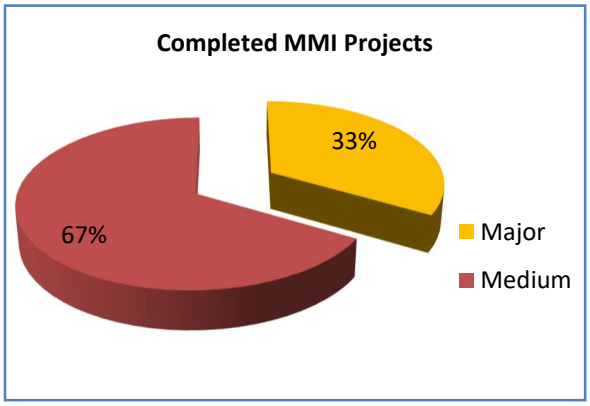
- The State of Goa covers a total area of 3702 square kilometers. Total number of districts is two.
- During the 1st Census of Major & Medium Irrigation (MMI) Projects, a total of **03** MMI projects were canvassed in Goa. Out of these, **01** projects are categorized as Major projects and 02 projects fall under the Medium category.

A. Completion Status

- Out of total **03** MMI projects, 03 are completed which includes 01 major and 02 Medium project.

Chart 1: Distribution of Major and Medium Projects.





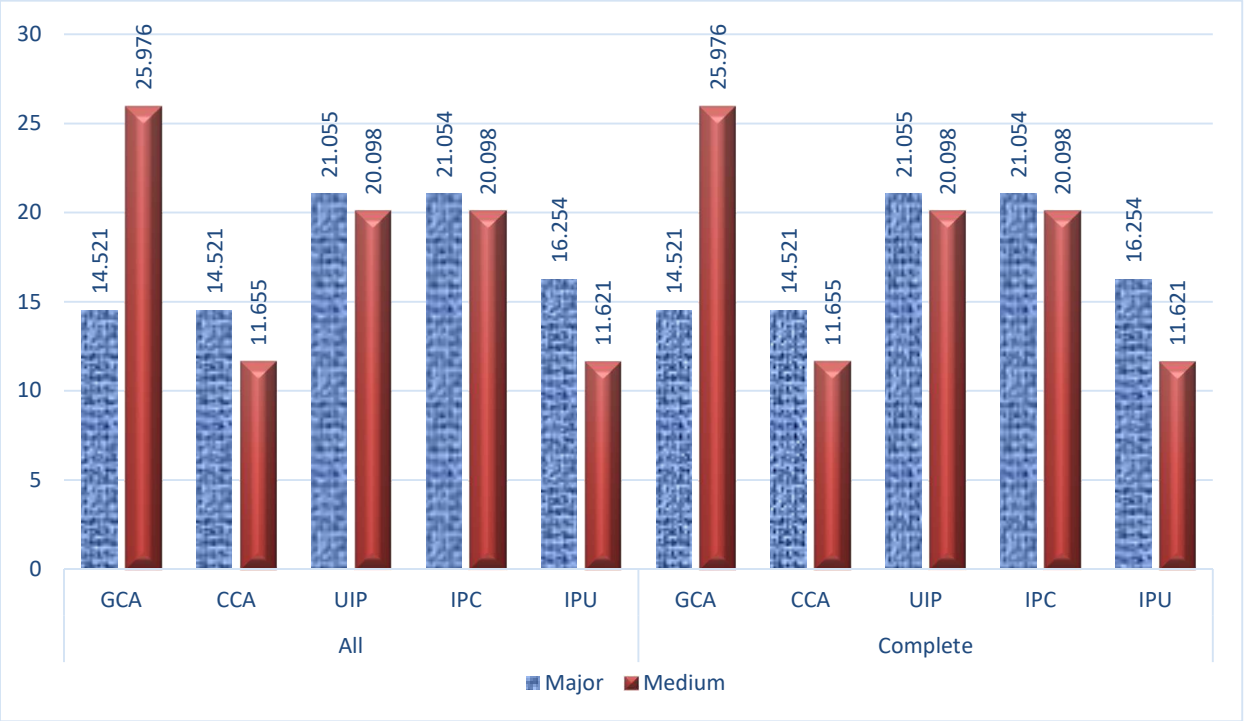
- All the major and medium projects are for Multipurpose.

Table 1: Nature of Project (number)

Nature of Project	Major	Medium
Irrigation	0	0
Multipurpose	1	2
Total	01	02

B. Coverage

Chart 2: Contribution of completed project in total project (in Th Ha)



- Above chart is showing that all complete projects are less utilized. Irrigation potential utilized is around 76% of Potential created for Major completed projects whereas it is 60% in case of Medium completed projects. Thus, around 25% and 40% of potential created are lost in case of Major and Medium completed projects respectively.

C. Type of Project

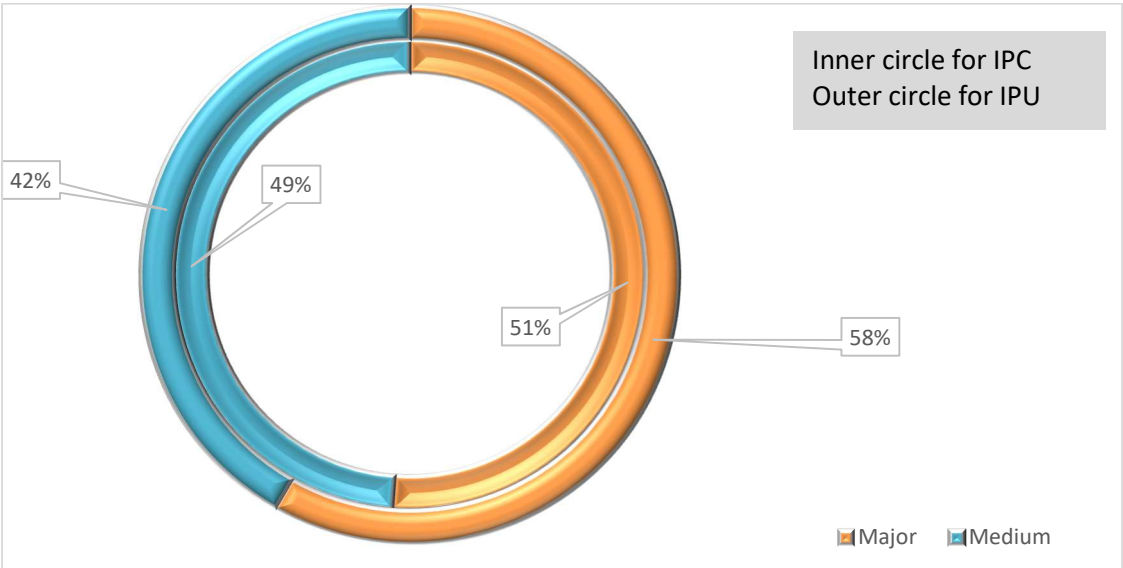
Table 2: Share of different type of project (number)

Project	Storage	Total
Major	1	1
Medium	2	2
Total	3	3
Share	100%	100%

- Above table is showing that 100% of all projects are of Storage type and there is no lift irrigation system.

D. Project wise Irrigated Area

Chart 3: Contribution of project in Irrigated area



- Above chart is showing that both in IPC and IPU, Major and Medium irrigation projects are contributing almost equally.

E. Season wise Contribution of project in Irrigation

Table 3: Season wise utilization in Irrigation (in Th Ha.)

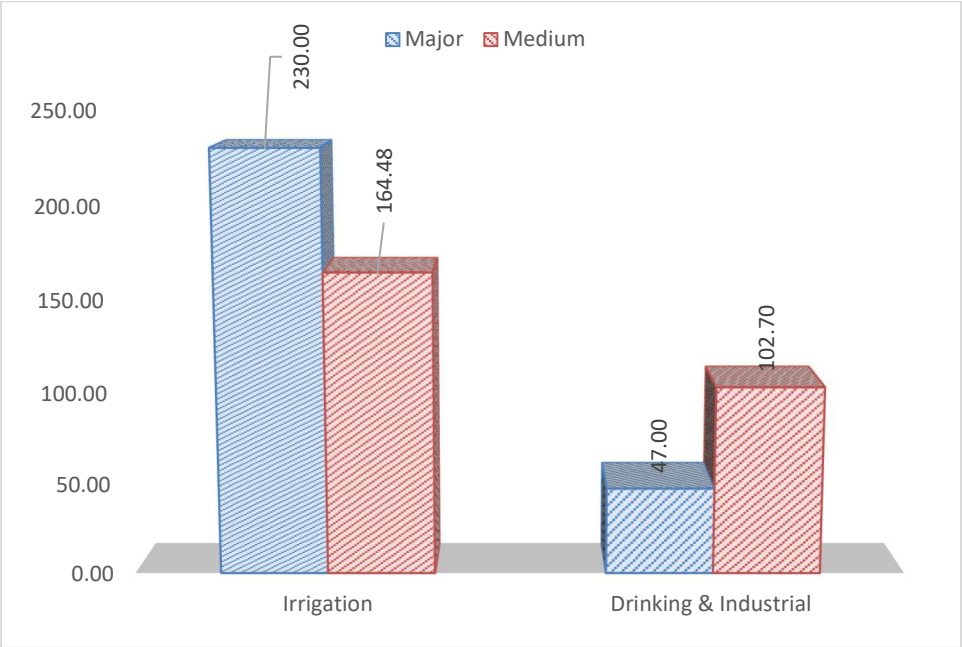
Projects	IPU				
	Kharif	Rabi	Perennial	Summer Season (Zaid)	Total
Major	4.484	3.924	5.044	2.802	16.254
Medium	5.574	3.373	1.100	1.574	11.621
Total	10.058	7.297	6.144	4.376	27.875
Share	24%	18%	15%	11%	68%

- Again these projects are utilizing mostly during Kharif season. However, their utility is throughout the all seasons.

F. Water Utilisation

- In irrigation, water utilization from Major project are more than that from Medium Projects. However, for drinking and industrial use, Medium projects are contributing more.

Chart 4: Water Utilization from Major & Medium Irrigation Projects (in Mcm)



G. Associated Program

- No project is under any program.

H. Irrigation Method

- All 3 projects are using flood irrigation method for irrigation.

I. CAD, CADWM, WUA

- There are 1 major & 2 medium projects covered under CAD area as shown below.
- 72 WUA was formed for 01 major project and 44 WUA was formed for 02 medium project.

Table 6: CAD, CADWM and WUA wise Status of Projects

Projects	Total Number Project	Number With Methods of Irrigation			Details of WUA			
		Number of Project	Area of CAD Work Executed from State Govt Funding (in 000'ha)	Area Covered Under CADWM (in 000'ha)	Number of Project	Total Number of WUA Formed	Area Covered Under WUA (in 000'Ha)	Numbers of Members
Major	1	1	13.360	0.450	1	72	14.521	19144
Medium	2	2	5.100	0.000	2	44	5.100	5046

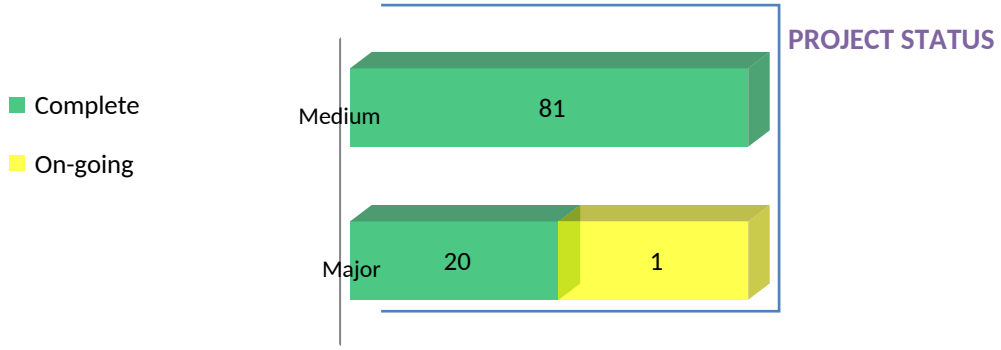
Gujarat

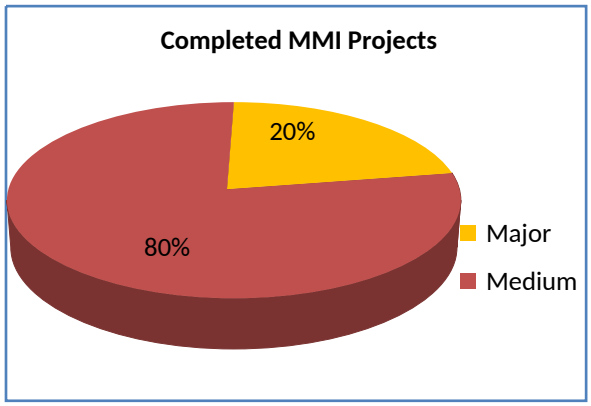
- The State of Gujarat covers a total area of 196024 square kilometers. Total number of districts is thirty three.
- During the 1st Census of Major & Medium Irrigation (MMI) Projects, a total of **102** MMI projects were canvassed in Gujarat. Out of these, **21** projects are categorized as Major projects and 81 projects fall under the Medium category.

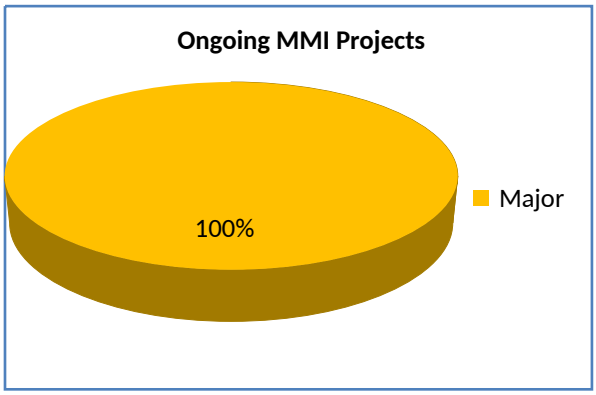
A. Completion Status

- Out of total 102 MMI projects, 101 are completed which includes 20 major and 81 Medium project. Remaining 01 major project is ongoing.

Chart 1: Distribution of Major and Medium Projects.







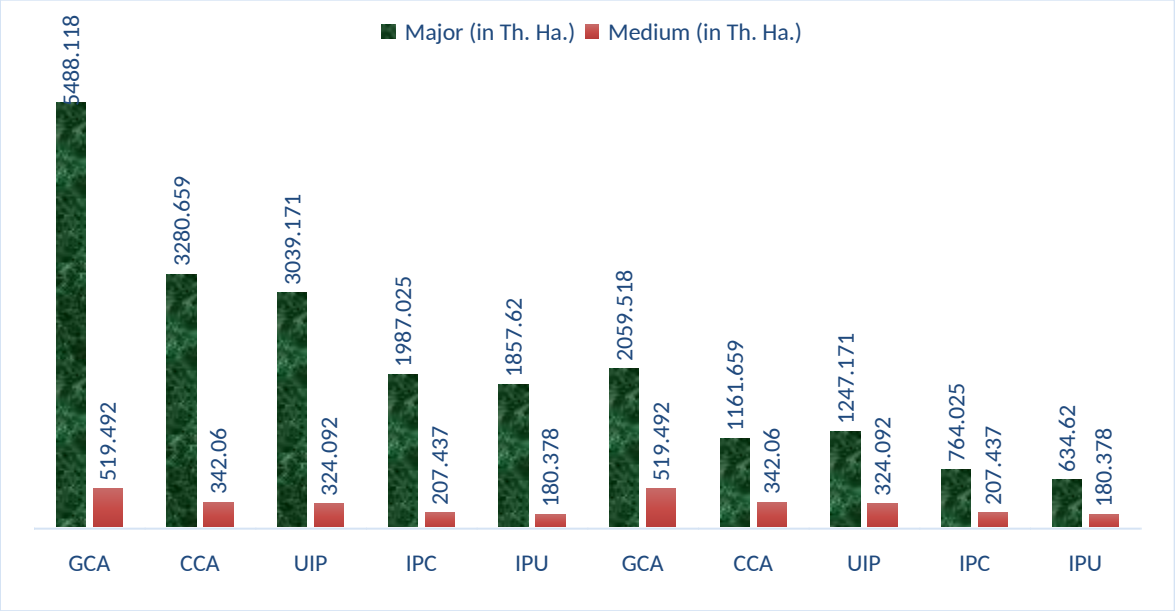
- Out of 21 Major Projects, all are for Multipurpose while out of 81 medium projects, 50 are for irrigation and 31 are for Multipurpose.

Table 1: Nature of Project (number)

Nature of Project	Major	Medium
Irrigation	0	50
Multipurpose	21	31
Total	21	81

B. Coverage

Chart 2: Contribution of completed project in total project (in Th Ha)



- Above chart is showing that all complete projects are successfully contributing considering IPC and IPU. However, Irrigation potential utilized by Major completed projects are around 83% of Potential created and that for Medium completed projects is 86%. Around 15-17% of potential created are lost for these completed projects.

C. Type of Project

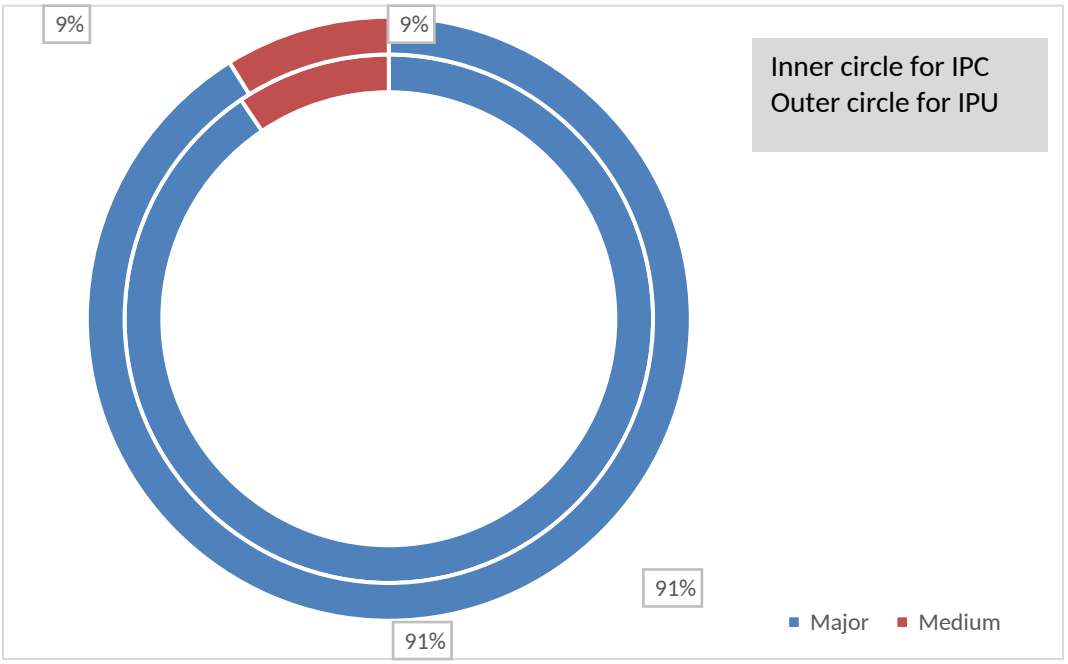
Table 2: Share of different type of project (number)

Project	Storage	Diversion	Lift irrigation	Storage & Diversion	Storage & Lift irrigation	Diversion & Lift irrigation	Storage & Diversion & Lift irrigation	Other	Total
Major	10	2	0	4	0	1	4	0	21
Medium	52	3	0	23	3	0	0	0	81
Total	62	5	0	27	3	1	4	0	102
Share	61%	5%	0%	26%	3%	1%	4%	0%	100%

- Above table is showing that 61% of all projects are of Storage and 26% Storage & Diversion type.

D. Project wise Irrigated Area

Chart 3: Contribution of project in Irrigated area



- Above chart is showing that in total irrigation potential utilization, Major irrigation projects are contributing more (91%) than Medium projects.

E. Season wise Contribution of project in Irrigation

Table 3: Season wise utilization in Irrigation (inTh Ha.)

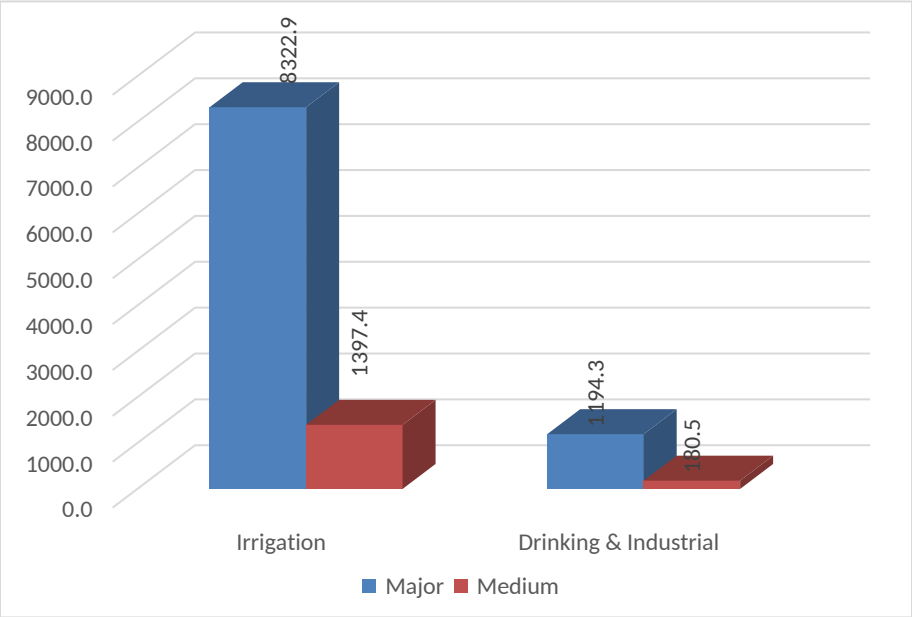
Projects	IPU						
	Kharif	Rabi	Bi Seasonal	Perennial	Summer Season (Zaid)	Other	Total
Major	424.30	1274.95	7.30	0.00	149.09	1.98	1857.62
Medium	53.30	95.53	7.29	2.58	20.48	1.20	180.38
Total	477.60	1370.47	14.60	2.58	169.57	3.18	2038.00
Share	22%	62%	1%	0%	8%	0%	93%

- Again these projects are utilizing mostly during Kharif and Rabi season. However, their utility is throughout all agricultural seasons.

F. Water Utilisation

- In irrigation, as expected, water utilization from Major project are more than that from Medium Projects.

Chart 4: Water Utilization from Major & Medium Irrigation Projects (in Mcm)



G. Associated Program

- Out of 21 Major projects 06 project is under some programs while out of 81 Medium projects 06 are also under different program. Their coverage area is shown in table 5.

Table 4: Number of MMI Project under different program

Project	Total number of Project	No. of MMI Project Under Different Programs				
		Drought Prone Area Programme	Desert Development Programme	Tribal Area	Flood Prone Area	Left Wing Extremism Affected Area
Major	21	6				
Medium	81	6				

Table 5: Area under different program (in Th Ha)

Project	Area Under Different Programs				
	Drought Prone Area Programme	Desert Development Programme	Tribal Area	Flood Prone Area	Left Wing Extremism Affected Area
Major	41.17	0.00	205.00	8.10	0
Medium	0.00	0.00	17.83	0.00	0

H. Irrigation Method

- All the 102 projects are using flood irrigation method.

I. CAD, CADWM, WUA

- There are 2 major projects covered under CAD area as shown below and 5610 WUA was formed for 18 major projects.
- Similarly, 01 medium projects covered under CAD area as shown below and 377 WUA was formed for 47 medium projects.

Table 6: CAD, CADWM and WUA wise Status of Projects

Projects	Number With Methods of Irrigation				Details of WUA			
	Total Number Project	Number of Project	Area of CAD Work Executed from State Govt Funding (in 000'ha)	Area Covered Under CADWM (in 000'ha)	Number of Project	Total Number of WUA Formed	Area Covered Under WUA (in 000'Ha)	Numbers of Members
Major	21	2	83.06	0	18	5610	2209.09	951627
Medium	81	1	6.19	0	47	377	119.95	39202

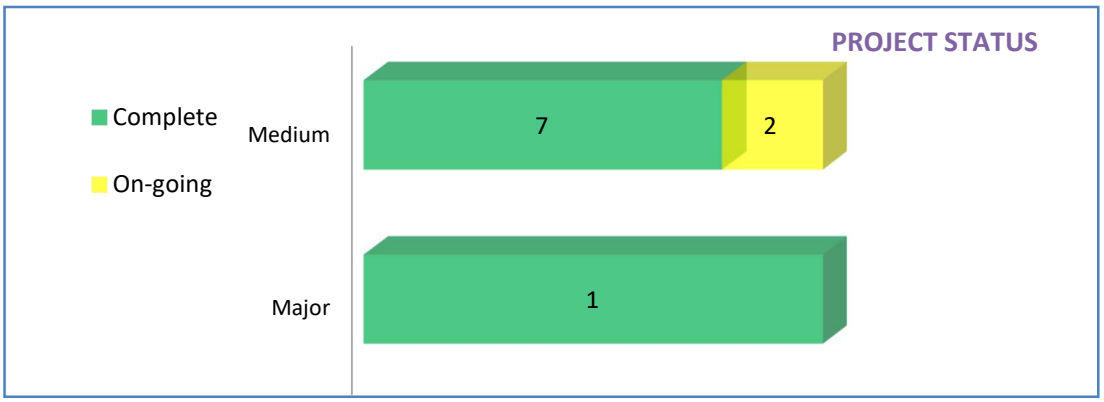
Himachal Pradesh

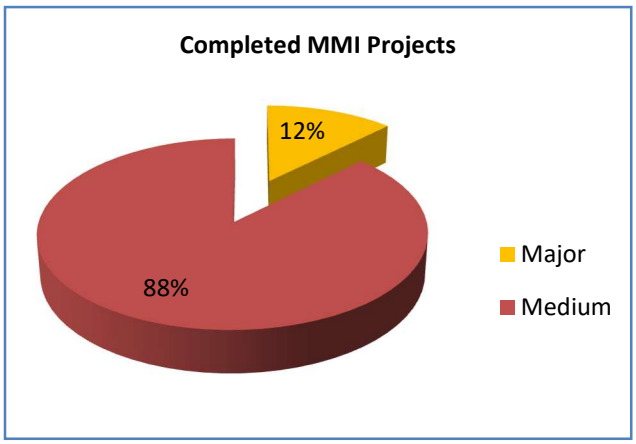
- The State of Himachal Pradesh covers a total area of 55,673 square kilometers. Total number of districts is twelve.
- During the 1st Census of Major & Medium Irrigation (MMI) Projects, a total of **10** MMI projects were canvassed in Himachal Pradesh. Out of these, **01** projects are categorized as Major projects and **09** projects fall under the medium category.

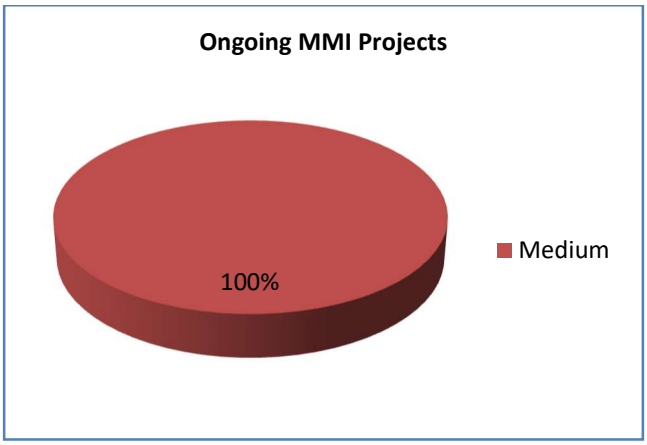
A. Completion Status

- Out of total 10 MMI projects, 8 are completed which includes 1 Major and 7 Medium project. Remaining 2 projects are on-going which are Medium project.

Chart 1: Distribution of Major and Medium Projects







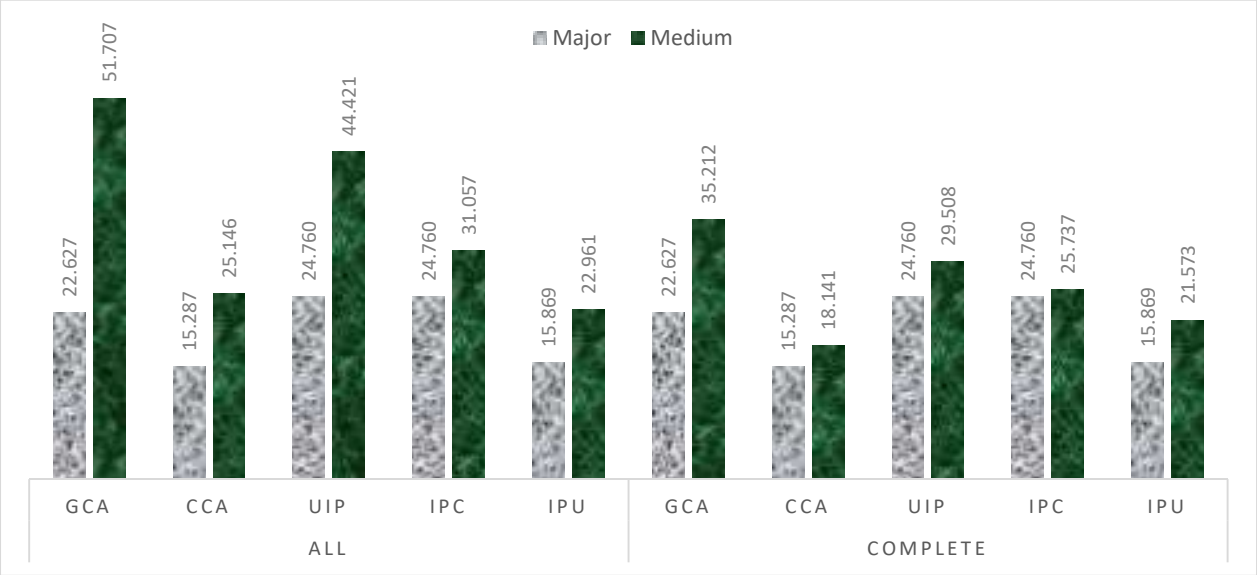
- The only Major projects is used for Irrigation while out of 9 Medium projects, 7 are for Irrigation.

Table 1: Nature of Project (number)

Nature of Project	Major	Medium
Irrigation	1	7
Multipurpose	0	2
Total	1	9

B. Coverage

Chart 2: Contribution of completed project in total project (in Th Ha)



- Above chart is showing that all complete project is successfully contributing considering IPC and IPU. However, Irrigation potential utilized by Major completed projects are around 64% of Potential created and that for Medium completed projects is 84%. Thus, a good gap is indicating potential loss for these completed projects.

C. Type of Project

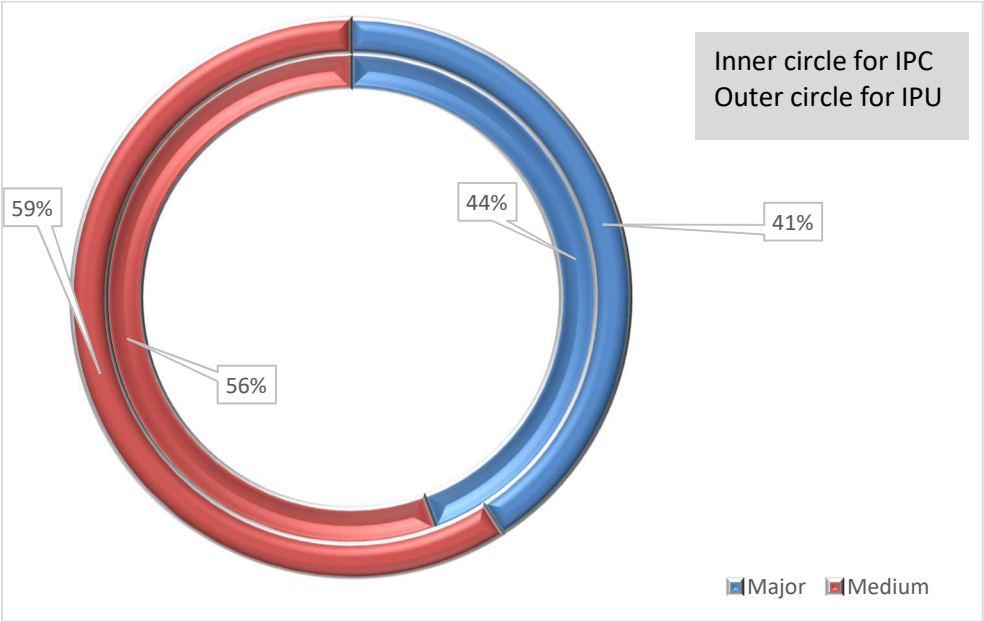
Table 2: Share of different type of project (number)

Nature of MMI project	Diversion	Lift Irrigation	Diversion & Lift irrigation	Storage & Diversion & Lift irrigation	Total
Major	1	0	0	0	1
Medium	1	6	1	1	9
Total	2	6	1	1	10
Share	20%	60%	10%	10%	100%

- Above table is showing that 20% of all project are of Diversion type and 60% are lift irrigation type system.

D. Project wise Irrigated Area

Chart 3: Contribution of project in Irrigated area



- Above chart is showing that in total irrigation potential utilization, Medium projects are contributing more (59%) than Medium projects.

E. Season wise Contribution of project in Irrigation

Table 3: Season wise utilization in Irrigation (in Th. Ha.)

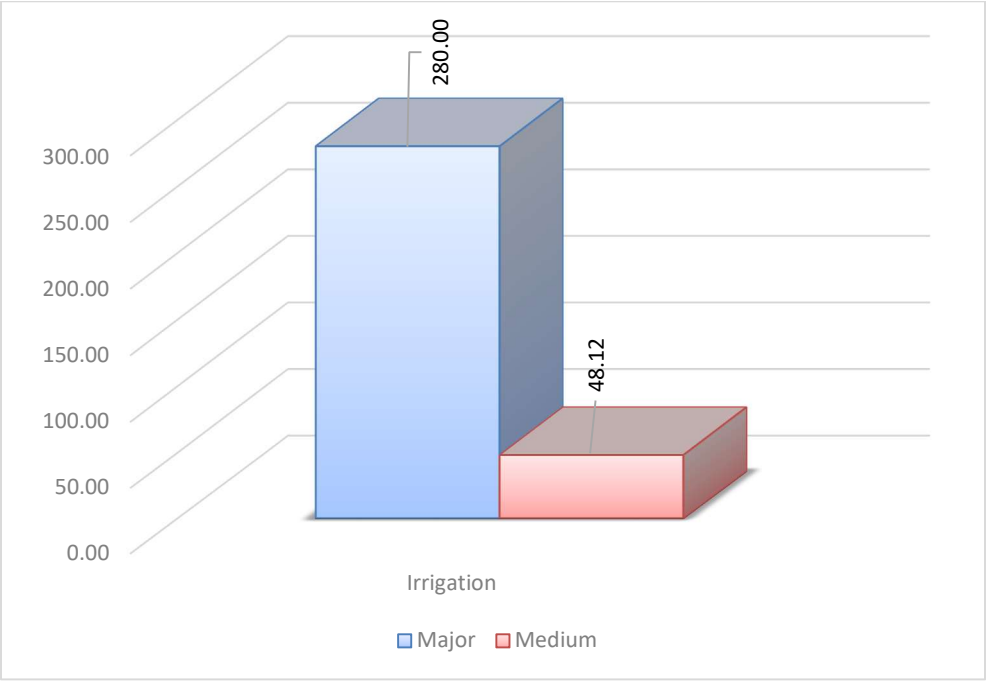
Project	IPU						
	Kharif	Rabi	Bi Seasonal	Perennial	Summer Season (Zaid)	Other	Total
Major	7.100	6.850	0.000	1.689	0.000	0.230	15.869
Medium	10.794	10.690	0.405	0.599	0.102	0.371	22.961
Total	17.894	17.540	0.405	2.288	0.102	0.601	38.830
Share	32%	31%	1%	4%	0%	1%	70%

- Again, these projects are utilizing mostly during Kharif & Rabi season. However, these are using for irrigation throughout all agricultural seasons.

F. Water Utilisation

- In irrigation, water utilization from Major project is more than that from Medium Projects.

Chart 4: Water Utilization from Major & Medium Irrigation Projects (in Mcm)



G. Associated Program

- No Major and Medium projects are associated with any program

H. Irrigation Method

- All 10 projects are using flood irrigation method.

I. CAD, CADWM, WUA

- There is 1 Major project having CAD covered area as shown below and 93 WUA was formed.
- In case of Medium projects, 9 are having CAD covered area as shown below and 129 WUA was formed.

Table 6: CAD, CADWM and WUA wise Status of Projects

Projects	Total Number Project	Number With Methods of Irrigation			Details of WUA			
		Number of Project	Area of CAD Work Executed from State Govt Funding (in 000'Ha)	Area Covered Under CADWM (in 000'Ha)	Number of Project	Total Number of WUA Formed	Area Covered Under WUA (in 000'Ha)	Numbers of Members
Major	1	1	1.000	9.000	1	93	15.287	744
Medium	9	5	6.697	9.673	4	129	17.233	844

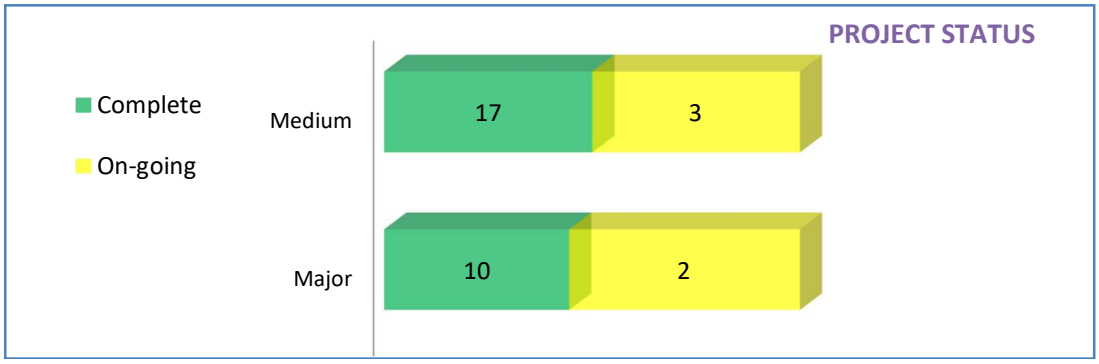
Kerala

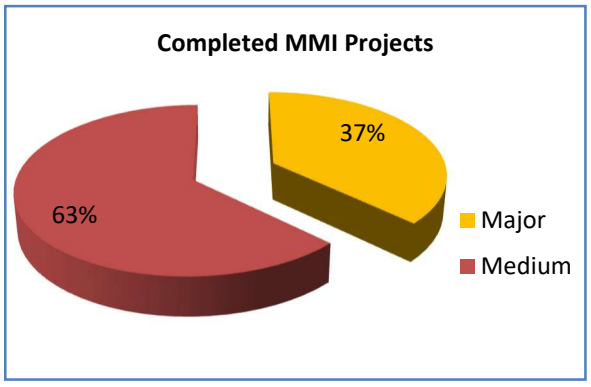
- The State of Kerala covers a total area of 38,863 square kilometer. Total number of districts is fourteen.
- During the 1st Census of Major & Medium Irrigation (MMI) Projects, a total of **32** MMI projects were canvassed in Kerala. Out of these, **12** projects are categorized as Major projects and 20 projects fall under the Medium category.

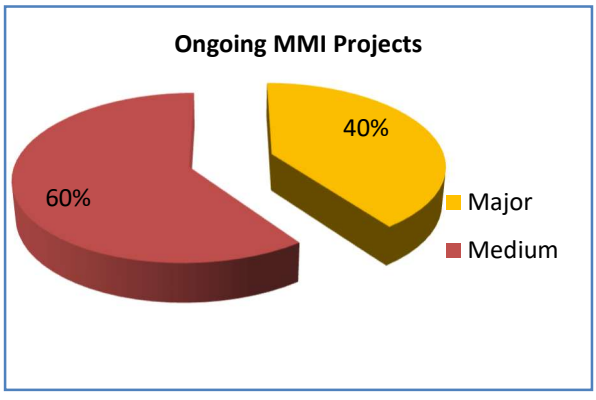
A. Completion Status

- Out of total 32 MMI projects, 27 are completed which includes 10 major and 17 Medium project. Remaining 05 projects are ongoing on which 2 major and 3 medium projects.

Chart 1: Distribution of Major and Medium Projects.







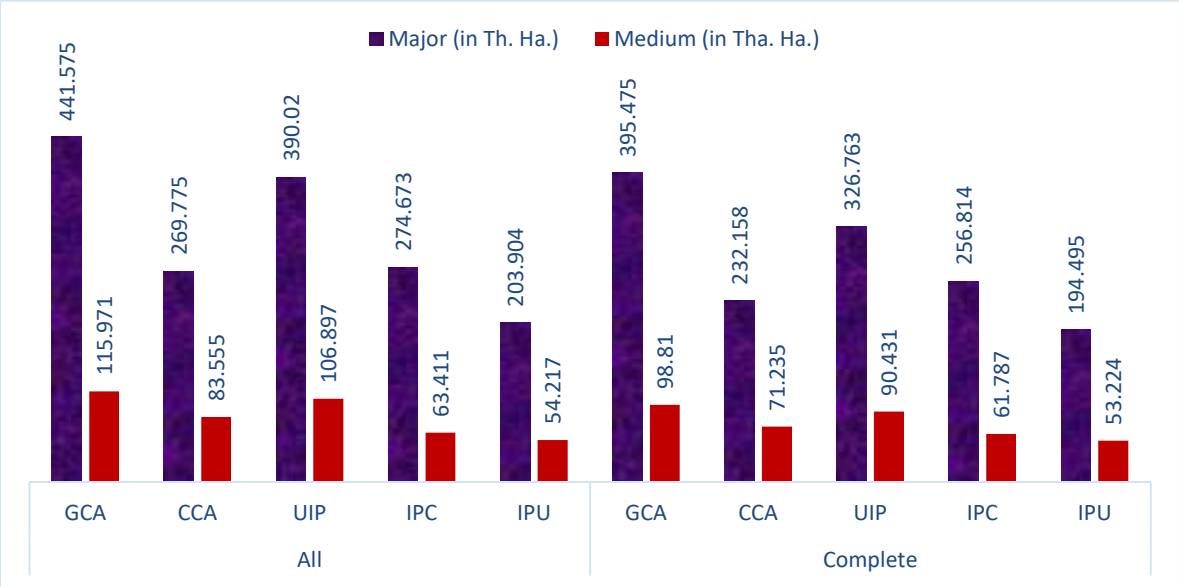
- Out of 12 Major Projects, 9 are for Multipurpose while out of 20 medium projects, 12 are for Multipurpose.

Table 1: Nature of Project (number)

Nature of Project	Major	Medium
Irrigation	3	8
Multipurpose	9	12
Total	12	20

B. Coverage

Chart 2: Contribution of completed project in total project (in Th Ha)



- Above chart is showing Irrigation potential utilized is around 75% of Potential created for Major completed projects whereas it is around 85% in case of Medium completed projects. Thus, Potential loss is facing by Major completed projects.

C. Type of Project

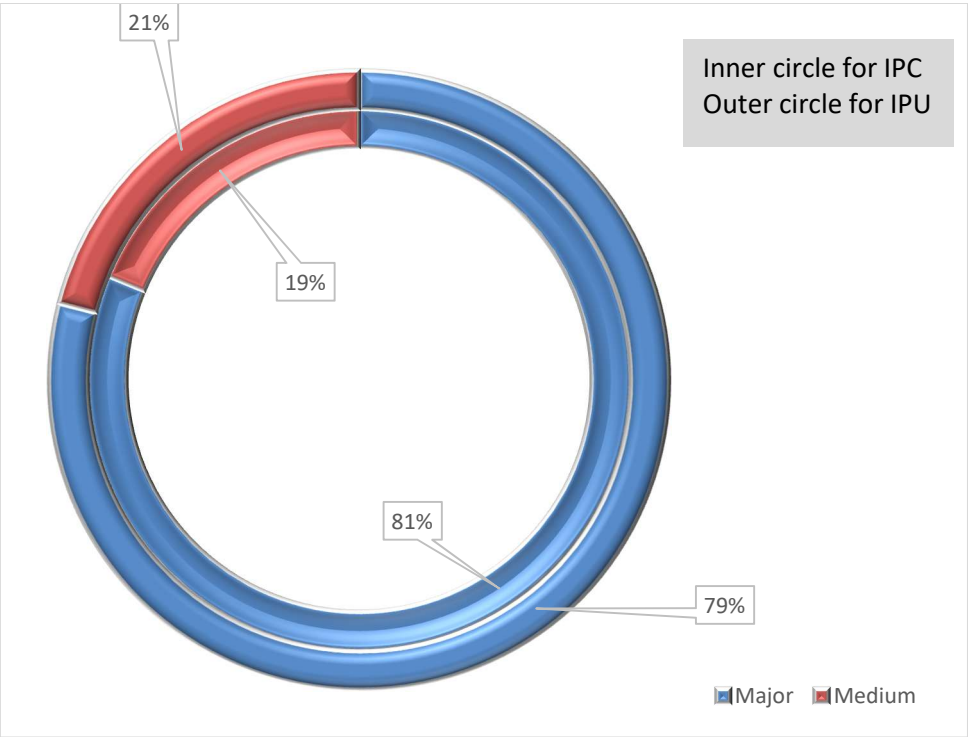
Table 2: Share of different type of project (number)

Project	Storage	Diversion	Storage & Diversion	Others	Total
Major	4	5	4	0	13
Medium	13	2	0	4	19
Total	17	7	4	4	32
Share	53%	22%	13%	13%	100%

- Above table is showing that 53% of all projects are of Storage & 22% Diversion type irrigation system. There is no lift irrigation system.

D. Project wise Irrigated Area

Chart 3: Contribution of project in Irrigated area



- Above chart is showing that in total irrigation potential utilization, Major projects are contributing more (79%) than Medium projects.

E. Season wise Contribution of project in Irrigation

Table 3: Season wise utilization in Irrigation (in Th Ha.)

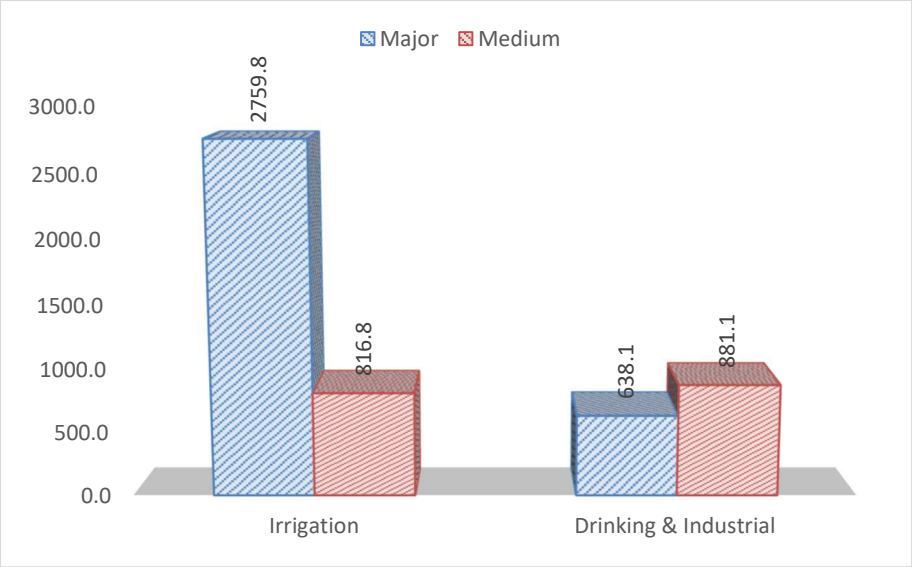
Projects	IPU						
	Kharif	Rabi	Bi Seasonal	Perennial	Summer Season (Zaid)	Other	Total
Major	73.55	76.14	3.40	16.68	27.27	6.86	203.90
Medium	20.94	17.86	0.22	12.30	1.08	1.81	54.22
Total	94.49	94.00	3.62	28.99	28.35	8.68	258.12
Share	28%	28%	1%	9%	8%	3%	76%

- Again, these projects are utilizing mostly during Kharif & Rabi season. However, their utility is throughout all agricultural seasons.

F. Water Utilisation

- In irrigation, as expected, water utilization from Major project are more than that from Medium Projects. However, for drinking and industrial use, Medium projects are contributing more.

Chart 4: Water Utilization from Major & Medium Irrigation Projects (in Mcm)



G. Associated Program

- Out of 12 Major projects, 01 project is under *Flood Prone Area* program while out of 20 Medium projects no project is under any program. Area wise coverage is shown in table 5.

Table 4: Number of MMI Project under different program

Project	Total number of Project	No. of MMI Project Under Different Programs				
		Drought Prone Area Programme	Desert Development Programme	Tribal Area	Flood Prone Area	Left Wing Extremism Affected Area
Major	12	1				
Medium	20	0				

Table 5: Area under different program (in Th Ha)

Project	Area Under Different Programs				
	Drought Prone Area Programme	Desert Development Programme	Tribal Area	Flood Prone Area	Left Wing Extremism Affected Area
Major	0	0	0	0.23	0
Medium	0	0	0	0	0

H. Irrigation Method

- All 32 projects are using flood irrigation method for irrigation.

I. CAD, CADWM, WUA

- There are 5 major projects covered under CAD area as shown below and 329 WUA was formed for 04 Major project.
- Similarly, 3 projects covered under CAD area as shown below and 69 WUA was formed for 01 Medium project.

Table 6: CAD, CADWM and WUA wise Status of Projects

Projects	Number With Methods of Irrigation				Details of WUA			
	Total Number Project	Number of Project	Area of CAD Work Executed from State Govt Funding (in 000'ha)	Area Covered Under CADWM (in 000'ha)	Number of Project	Total Number of WUA Formed	Area Covered Under WUA (in 000'Ha)	Numbers of Members
Major	12	5	11.85	13.15	4	329	24,851.87	6468
Medium	20	3	0.180	0	1	69	3.50	3000

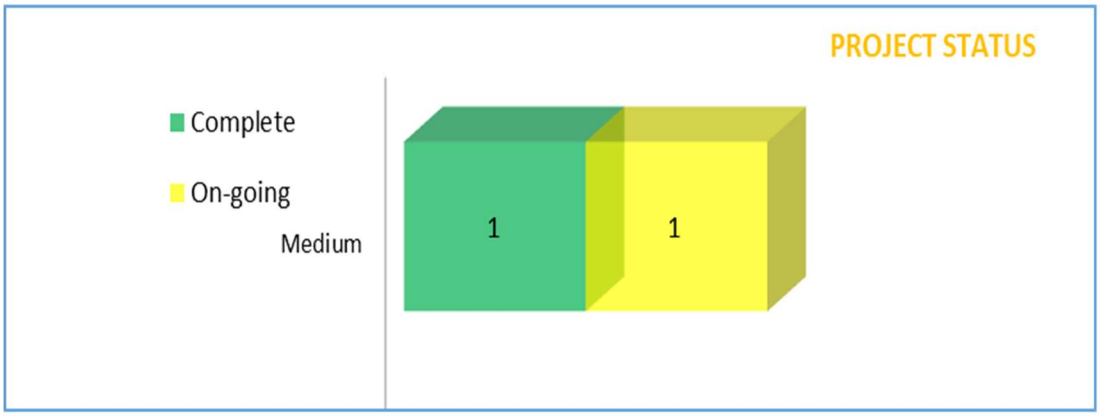
Ladakh

- The State of Ladakh covers a total area of 59,146 square kilometers. Total number of districts is **2**.
- During the 1st Census of Major & Medium Irrigation (MMI), a total of **2** MMI projects were canvassed in Ladakh. These, **2** projects fall under the Medium category.

A. Completion Status

- Out of these 2 Medium projects, 1 is completed and 1 project is ongoing.

Chart 1: Distribution of Major and Medium Projects.



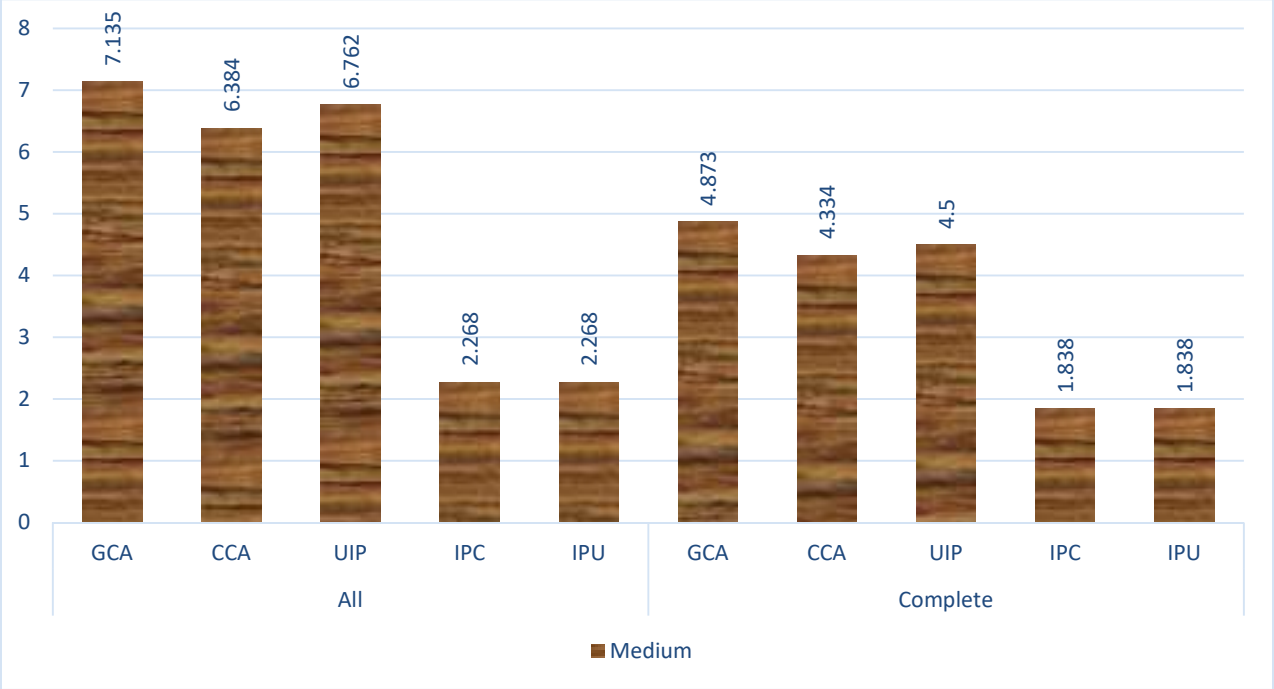
- Out of 2 Medium Projects 1 is for irrigation and 1 is multipurpose.

Table 1: Nature of Project (number)

Nature of Project	Major	Medium
Irrigation	0	1
Multipurpose	0	1
Total	0	2

B. Coverage

Chart 2: Contribution of completed project in total project (in Th Ha)



- Above chart is showing that the complete project is successfully contributing considering IPC and IPU. There is no potential loss reported.

C. Type of Project

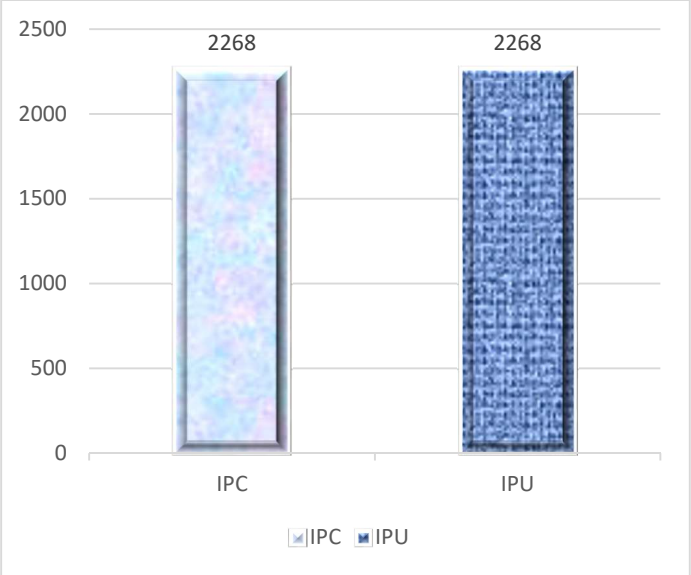
Table 2: Share of different type of project (number)

Project	Diversion	Total
Medium	2	2
Total	2	2
Share	100%	100%

- Above table is showing that 100% of all project are of Diversion type and there is no lift irrigation system.

D. Project wise Irrigated Area

Chart 3: Contribution of project in Irrigated area (in Th Ha)



- Above chart is showing that in total irrigation potential utilization, medium projects are contributing fully as there is no Major projects.

E. Season wise Contribution of project in Irrigation

- These projects are utilizing mostly during Summer Season (Zaid). Also, these projects are providing irrigation facility for Kharif crops.

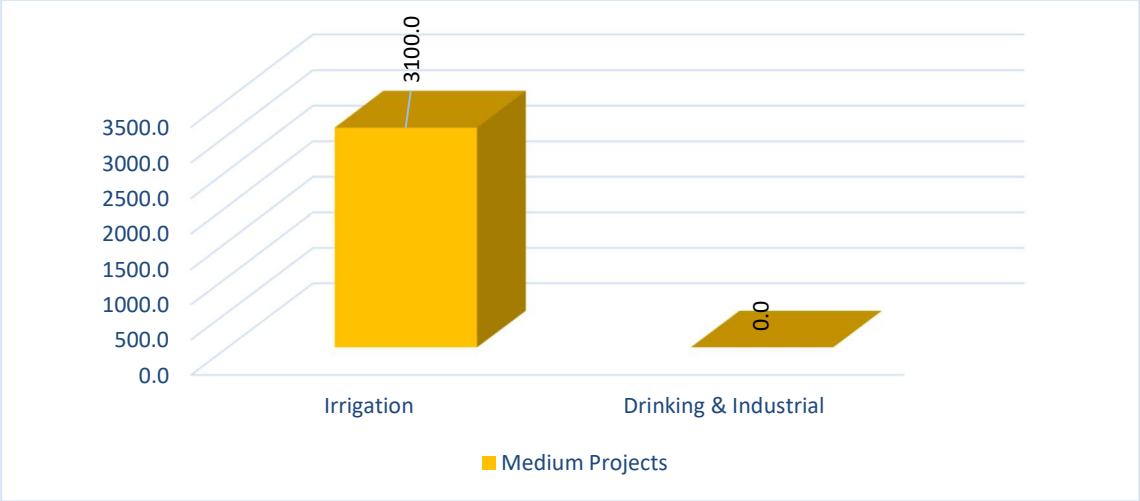
Table 3: Season wise utilization in Irrigation (in Th ha)

Project	IPU		
	Kharif	Summer Season (Zaid)	Total
Medium	0.430	1.838	2.268
Total	0.430	1.838	2.268
Share	19%	81%	100%

F. Water Utilisation

- In irrigation, only source for water utilization is medium projects as there is no Major project present.

Chart 4: Water Utilization from Major & Medium Irrigation Projects (in Mcm)



G. Associated Program

- Out of 2 Medium projects 1 project is under some program. Area coverage under these program is shown in table 5.

Table 4: Number of Project under different program

Project	Total number of Project	No. of MMI Projects Under Different Programs				
		Drought Prone Area Programme	Desert Development Programme	Tribal Area	Flood Prone Area	Left Wing Extremism Affected Area
Medium	2	1				

Table 5: Area under different program (in Th. Ha.)

Project	Area Under Different Programs				
	Drought Prone Area Programme	Desert Development Programme	Tribal Area	Flood Prone Area	Left Wing Extremism Affected Area
Medium	0.100	0	0.100	0.050	0

H. Irrigation Method

- All the 2 Medium Projects, are using flood irrigation method.

I. CAD, CADWM, WUA

- There are no projects covered under CAD area and No WUA was formed.

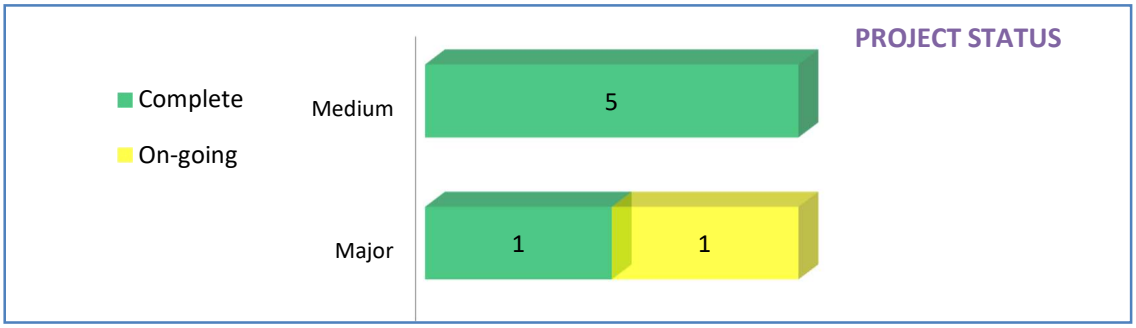
Manipur

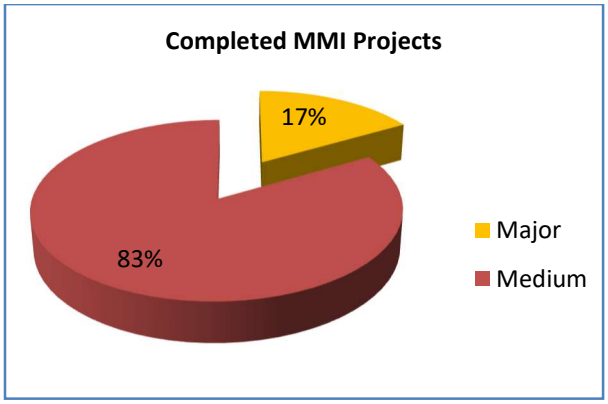
- The State of West Bengal covers a total area of **22,327** square kilometers. Total number of districts is **16**.
- During the 1st Census of Major & Medium Irrigation (MMI) Projects, a total of **7** MMI projects were canvassed in West Bengal. Out of these, **02** projects are categorized as Major projects and 05 projects fall under the Medium category.

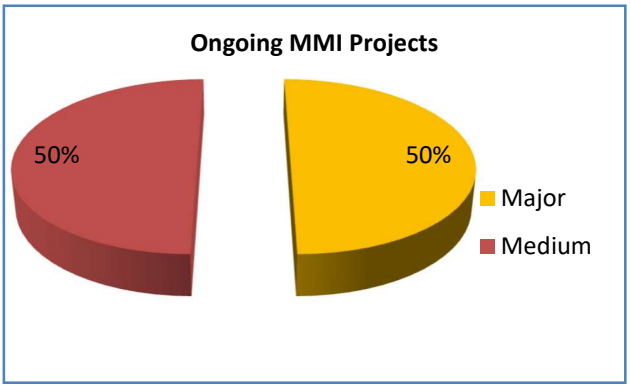
A. Completion Status

- Out of total 7 MMI projects, 6 are completed which includes 1 major and 5 Medium project. Remaining 1 project is ongoing which is 1 Major project.

Chart 1: Distribution of Major and Medium Projects.







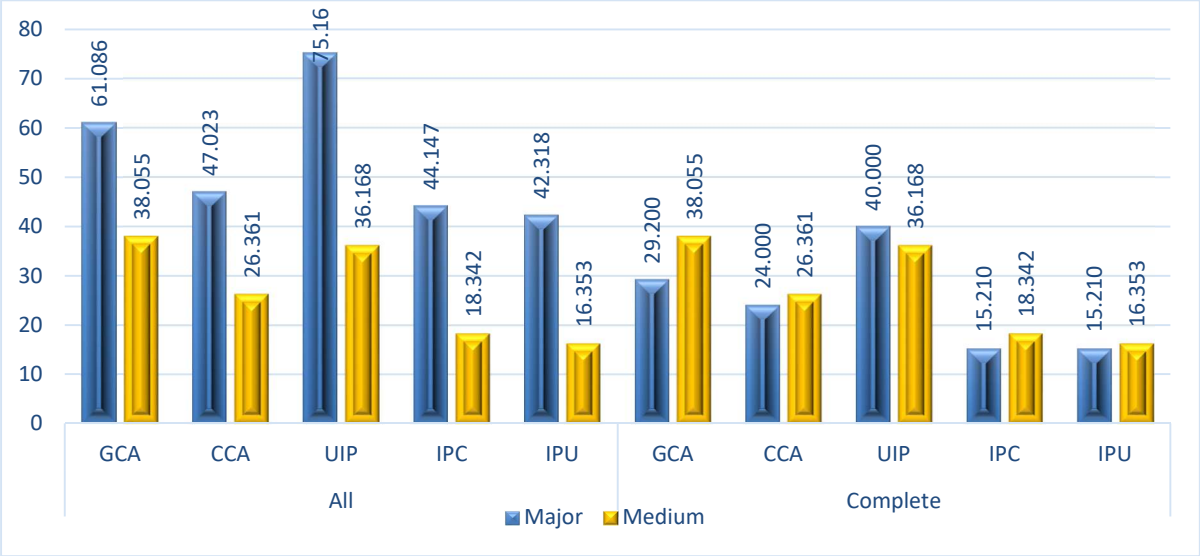
- Out of 2 Major Projects 1 is for irrigation and 1 is multipurpose while out of 5 Medium projects, 3 are for irrigation.

Table 1: Nature of Project (number)

Nature of Project	Major	Medium
Irrigation	1	3
Multipurpose	1	2
Total	2	5

B. Coverage

Chart 2: Contribution of completed project in total project (in Th Ha)



- Above chart is showing that all complete project is successfully contributing considering IPC and IPU. Irrigation potential utilized is almost same or more than Potential created for these completed projects.

C. Type of Project

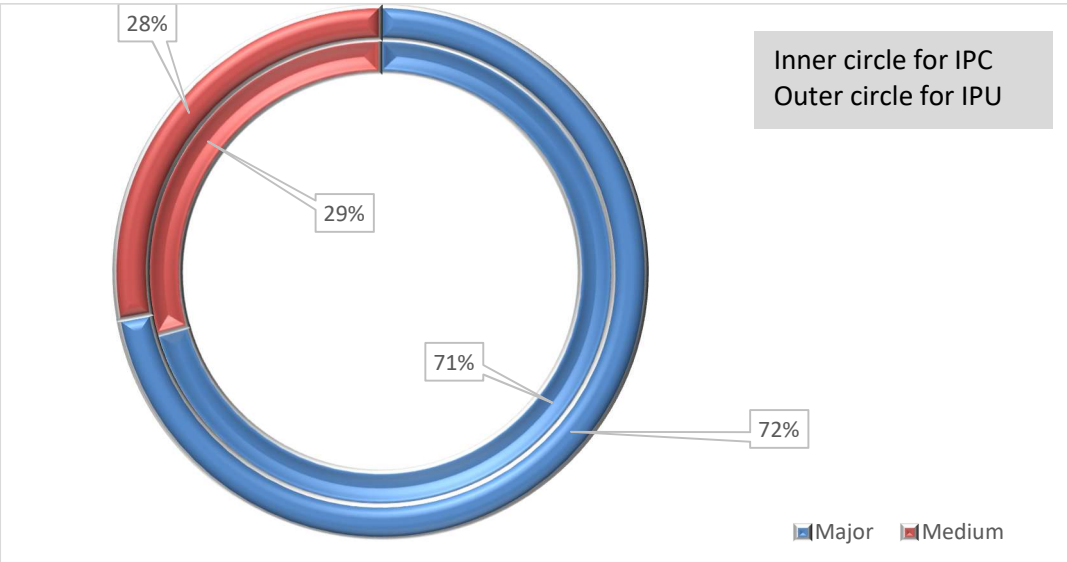
Table 2: Share of different type of project (number)

Project	Storage	Diversion	Lift irrigation	Total
Major	1	0	1	2
Medium	2	3	0	5
Total	3	3	1	7
Share	43%	43%	14%	100%

- Above table is showing that 43% of all project are of Storage type & 43% of all project are of Diversion type and 14% of all project are lift irrigation system.

D. Project wise Irrigated Area

Chart 3: Contribution of project in Irrigated area



- Above chart is showing that in total irrigation potential utilization, Major projects are contributing more (72%) than Medium projects.

E. Season wise Contribution of project in Irrigation

- Again, these project are utilizing mostly during both in Kharif and Rabi season. Also, these are used for summer crops.

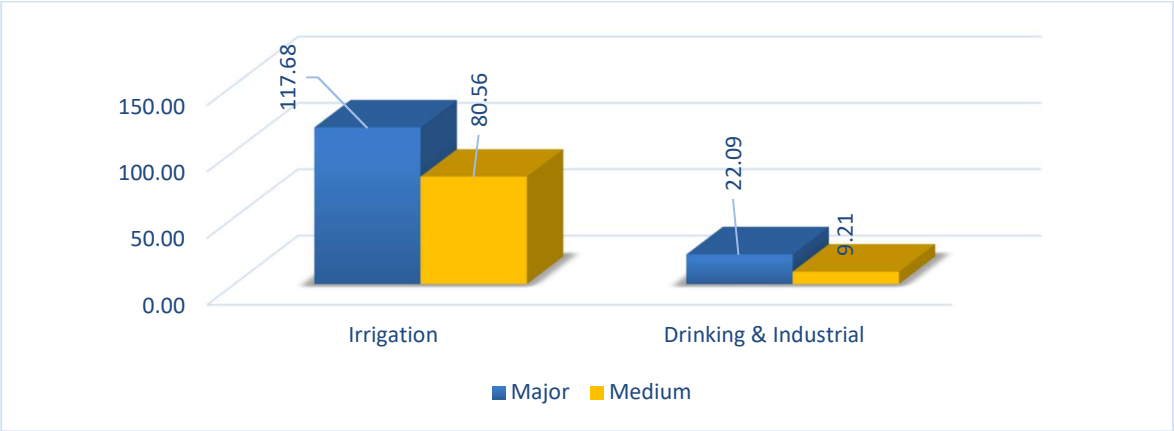
Table 3: Season wise utilization in Irrigation (in Th ha)

Project	IPU			
	Kharif	Rabi	Summer Season (Zaid)	Total
Major	25.653	12.709	3.956	42.318
Medium	12.070	1.630	2.653	16.353
Total	37.723	14.339	6.609	58.671
Share	60%	23%	11%	94%

F. Water Utilisation

- In irrigation, water utilization from Major project are more than that from Medium Projects.

Chart 4: Water Utilization from Major & Medium Irrigation Projects (in Mcm)



G. Associated Program

- Out of total 7 MMI projects no project is under any program.

H. Irrigation Method

- All 7 projects are using flood irrigation method.

I. CAD, CADWM, WUA

- 1 Major project is having CAD covered area as shown below and 89 WUA was formed for 2 major projects.
- 1 Medium project is having CAD covered area as shown below and 13 WUA was formed for 5 medium projects.

Table 6: CAD, CADWM and WUA wise Status of Projects

Project	Total Number Project	Number With Methods of Irrigation			Details of WUA			
		Number of Project	Area of CAD Work Executed from State Govt Funding (in 000'ha)	Area Covered Under CADWM (in 000'ha)	Number of Project	Total Number of WUA Formed	Area Covered Under WUA (in 000'Ha)	Numbers of Members
Major	2	1	7.83	4.92	2	89	39.94	1235
Medium	5	1	2.76	1.56	5	13	5.50	384

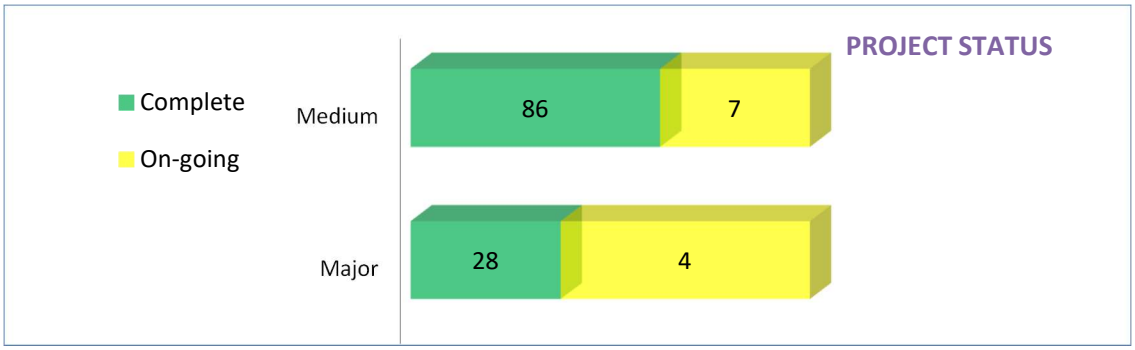
Rajasthan

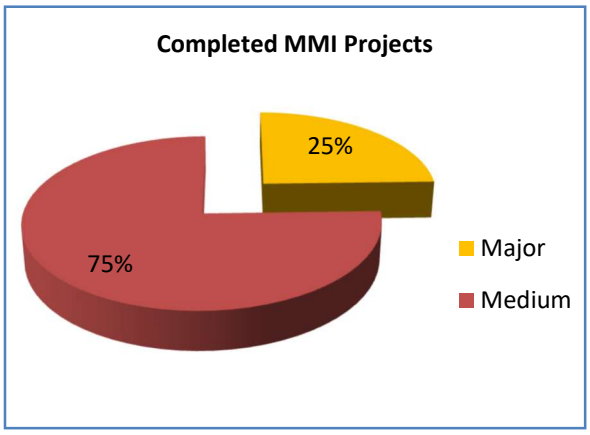
- The State of Rajasthan covers a total area of 342,239 square kilometers. Total number of districts is forty-one.
- During the 1st Census of Major & Medium Irrigation (MMI) Projects, a total of **125** MMI projects were canvassed in Rajasthan. Out of these, **32** projects are categorized as Major projects and **93** projects fall under the Medium category.

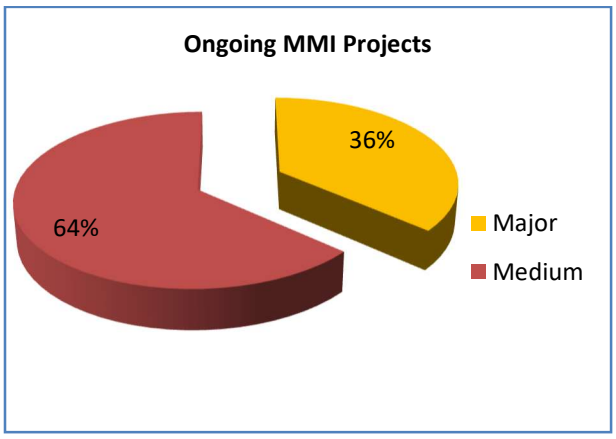
A. Completion Status

- Out of total 125 MMI projects, 114 are completed which includes 28 Major and 86 Medium project. Remaining 11 projects are going on which includes 4 Major and 7 Medium project.

Chart 1: Distribution of Major and Medium Projects.







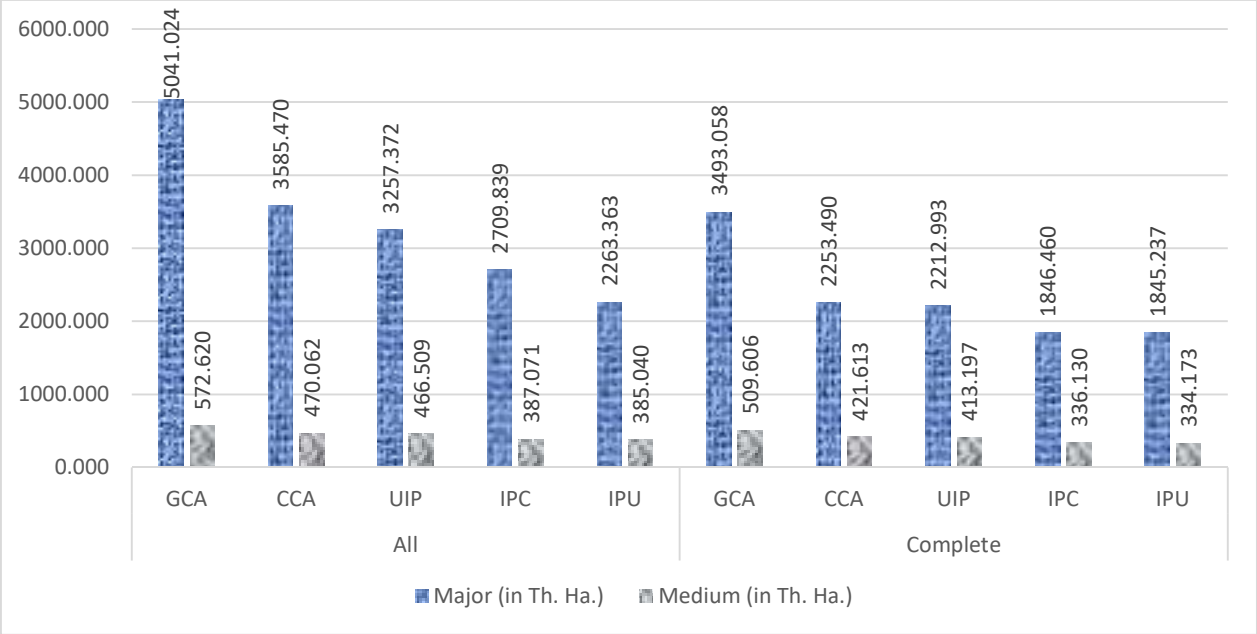
- Out of 32 Major Projects 14 are for Irrigation and remaining are Multipurpose while out of 93 Medium Projects, 76 are for Irrigation.

Table 1: Nature of Project (number)

Nature of Project	Major	Medium
Irrigation	14	76
Multipurpose	18	17
Total	32	93

B. Coverage

Chart 2: Contribution of completed project in total project (in Th Ha)



- Above chart is showing that all complete project is successfully contributing considering IPC and IPU. Irrigation potential utilized is almost same to Potential created for these completed projects.

C. Type of Project

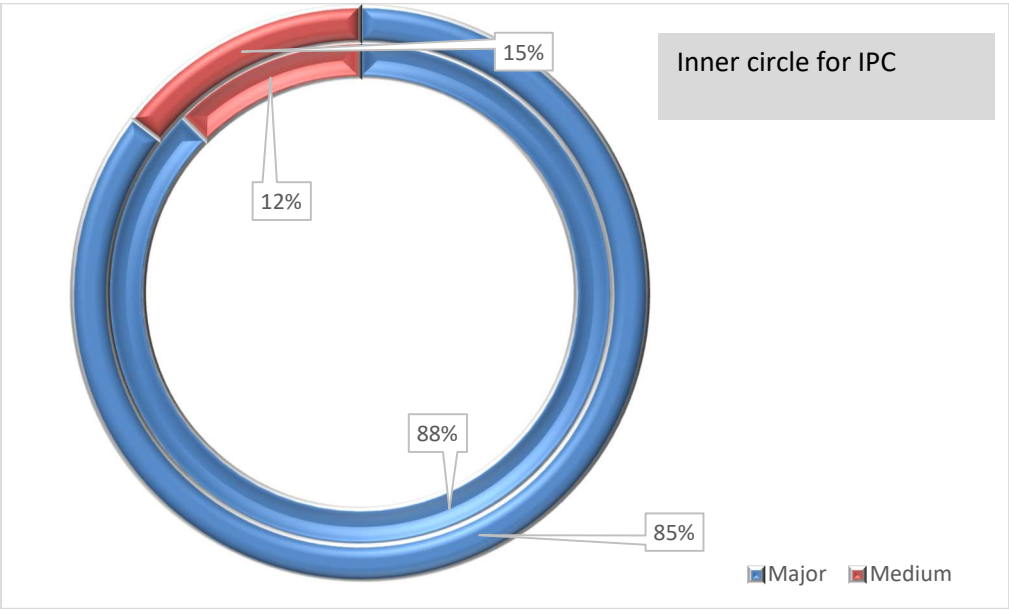
Table 2: Share of different type of project (number)

Project	Storage	Diversion	Lift irrigation	Storage & Diversion	Storage & Lift irrigation	Diversion & Lift irrigation	Storage & Diversion & Lift irrigation	Others	Total
Major	18	6	1	1	1	1	0	3	31
Medium	80	6	1	1	0	0	0	2	90
Total	98	12	2	2	1	1	0	5	121
Share	80%	10%	2%	2%	1%	1%	0%	4%	100%

- Above table is showing that 80% of all project are of Storage.

D. Project wise Irrigated Area

Chart 3: Contribution of project in Irrigated area



- Above chart is showing that in total irrigation potential utilization, Major projects are contributing (85%) more than Medium projects.

E. Season wise Contribution of project in Irrigation

Table 3: Season wise utilization in Irrigation (in Th Ha.)

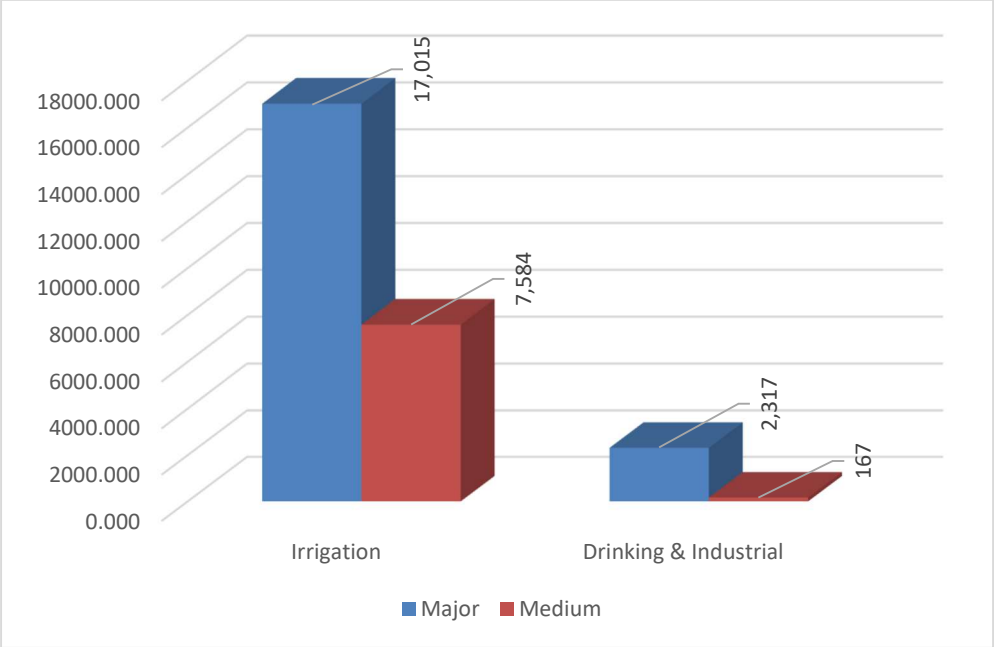
Project	IPU						
	Kharif	Rabi	Bi Seasonal	Perennial	Summer Season (Zaid)	Other	Total
Major	659.61	1603.60	0.00	0.00	0.16	0.00	2263.36
Medium	37.81	342.93	1.17	1.00	0.93	1.20	385.04
Total	697.41	1946.53	1.17	1.00	1.09	1.20	2648.40
Share	23%	63%	0%	0%	0%	0%	86%

- Again, these project are utilizing mostly during Kharif and Rabi season.

F. Water Utilisation

- In irrigation, as expected, water utilization from Major project are more than that from Medium Projects.

Chart 4: Water Utilization from Major & Medium Irrigation Projects (in Mcm)



G. Associated Program

- Out of 32 Major projects 3 projects are covered under different programs while out of 93 Medium projects 5 projects are associated with different program. Area wise coverage is shown in table 5.

Table 4: Number of Project under different program

Project	Total number of Project	No. of MMI Projects Under Different Programs				
		Drought Prone Area Programme	Desert Development Programme	Tribal Area	Flood Prone Area	Left Wing Extremism Affected Area
Major	32	3				
Medium	93	5				

Table 5: Area under different program (in Th. Ha.)

Project	Area Under Different Programs				
	Drought Prone Area Programme	Desert Development Programme	Tribal Area	Flood Prone Area	Left Wing Extremism Affected Area
Major	87.00	0.00	96.00	0.00	0.00
Medium	18.68	13.30	7.97	0.00	0.00

H. Irrigation Method

- Out of 125 projects, 119 projects are using flood irrigation method.

I. CAD, CADWM, WUA

- There are 7 major projects covered under CAD area as shown below and 4370 WUA was formed for 22 major projects.
- Similarly, no medium projects covered under CAD area as shown below and 413 WUA was formed for 75 medium projects.

Table 6: CAD, CADWM and WUA wise Status of Projects

Project	Total Number Project	Number With Methods of Irrigation			Details of WUA			
		Number of Project	Area of CAD Work Executed from State Govt Funding (in 000'Ha)	Area Covered Under CADWM (in 000'Ha)	Number of Project	Total Number of WUA Formed	Area Covered Under WUA (in 000'Ha)	Numbers of Members
Major	32	7	1404	1466	22	4370	3041	27250
Medium	93	0	0	0	75	413	401	19839

Tripura

- The State of Tripura covers a total area of **10,492** square kilometers. Total number of districts is **8**.
- During the 1st Census of Major & Medium Irrigation (MMI) Projects, a total of **3** MMI projects were canvassed in Tripura. These, **3** projects fall under the Medium category.

A. Completion Status

- All the 3 Medium projects, are completed and all of these are Irrigation Projects.

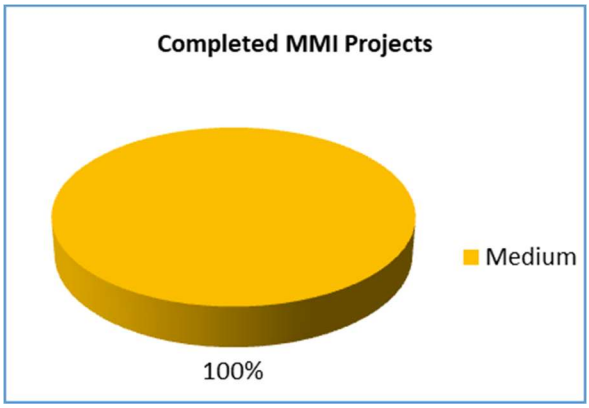
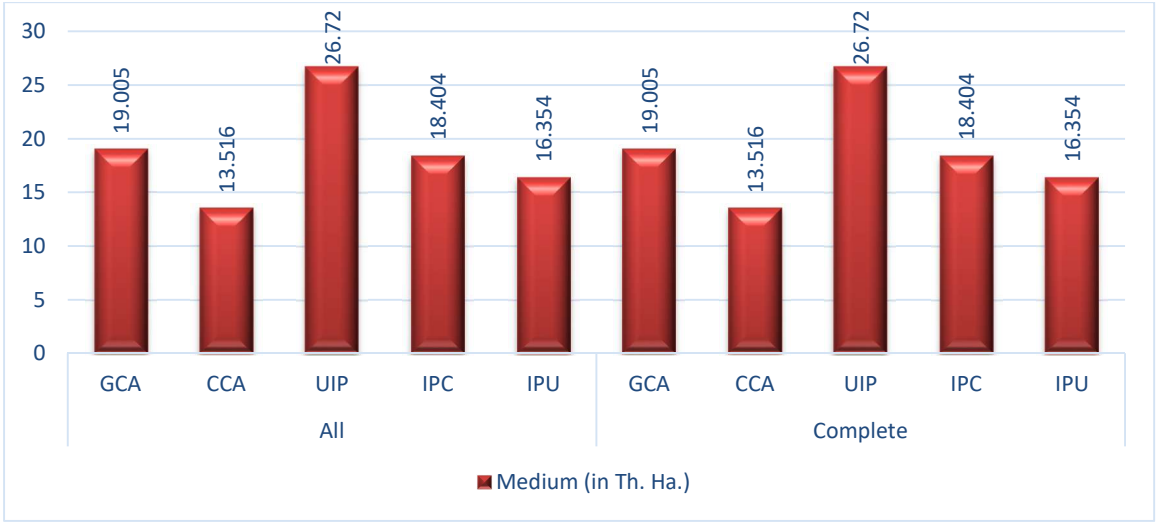


Table 1: Nature of Project (number)

Nature of Project	Medium
Irrigation	3
Multipurpose	0
Total	3

B. Coverage

Chart 1: Contribution of completed project in total project (in Th Ha)



- Chart 1 is showing that all complete project is successfully contributing considering IPC and IPU as Irrigation potential utilization is around 89% from these completed projects. However, there is 11% potential loss.

C. Type of Project

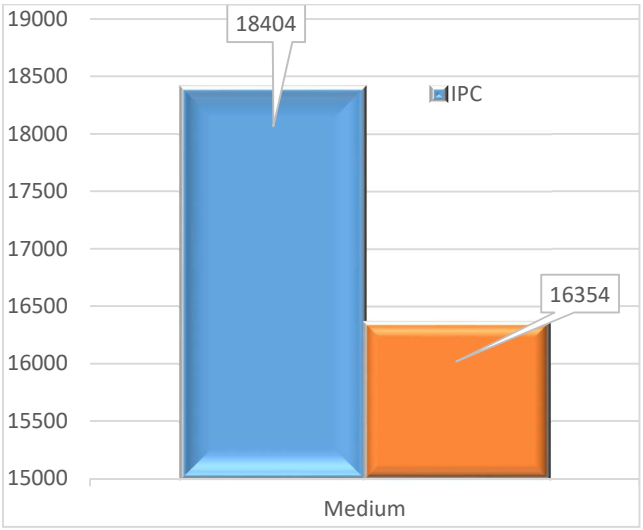
Table 2: Share of different type of project (number)

Project	Diversion	Total
Medium	3	3
Total	3	3
Share	100%	100%

- Above table is showing that 100% of all project are of Diversion type and there is no lift irrigation system.

D. Project wise Irrigated Area

Chart 2: Contribution of project in Irrigated area (in Th Ha)



- Left Chart is showing that in irrigation potential utilization, only medium projects are contributing as there is no Major project

E. Season wise Contribution of project in Irrigation

- These projects are utilizing mostly during Kharif Season. Also, Rabi crops are irrigated with the help of these projects.

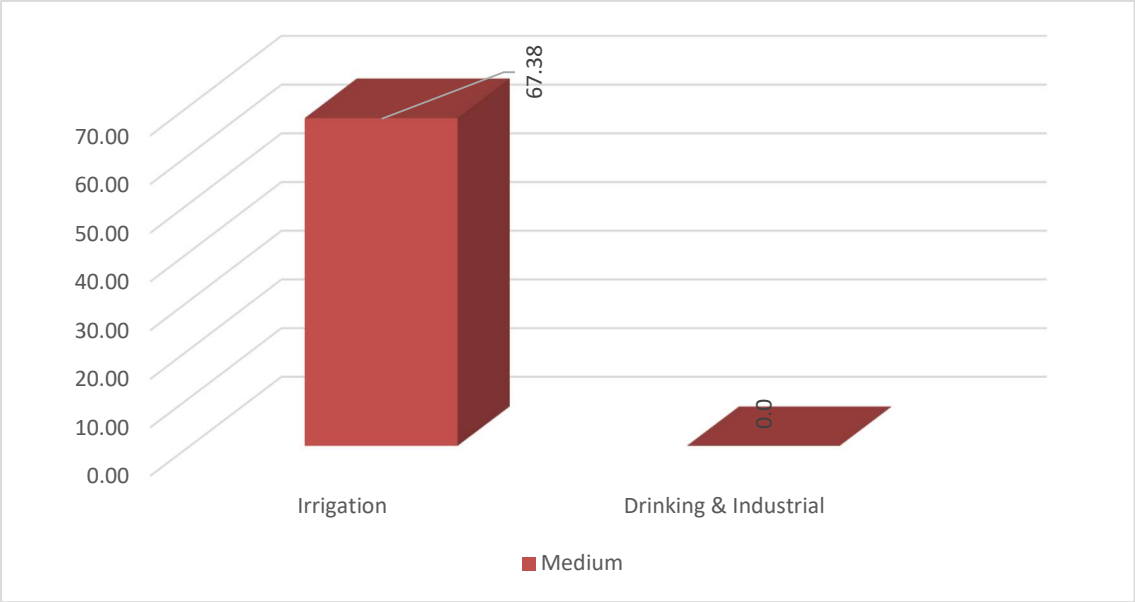
Table 3: Season wise utilization in Irrigation (in Th ha)

Project	IPU			
	Kharif	Rabi	Other	Total
Medium	8.186	6.698	1.470	16.354
Total	8.186	6.698	1.470	16.354
Share	44%	36%	8%	89%

F. Water Utilisation

- In irrigation, water utilization from these Medium project is shown in following Chart.

Chart 3: Water Utilization from Major & Medium Irrigation Projects (in Mcm)



G. Associated Program

- Out of 3 Medium projects, there is only 01 project is associated with some program. Area coverage under those program is shown in Table 5.

Table 4: Number of Project under different program

Project	Total number of Project	No. of MMI Projects Under Different Programs				
		Drought Prone Area Programme	Desert Development Programme	Tribal Area	Flood Prone Area	Left Wing Extremism Affected Area
Medium	3	1				

Table 5: Area under different program (Th. Ha.)

Project	Area Under Different Programs				
	Drought Prone Area Programme	Desert Development Programme	Tribal Area	Flood Prone Area	Left Wing Extremism Affected Area
Medium	0	0	4.198	0	0

H. Irrigation Method

- All the 3 projects are using flood irrigation method.

I. CAD, CADWM, WUA

- There are no projects covered under CAD area and no WUA was formed for Medium projects.

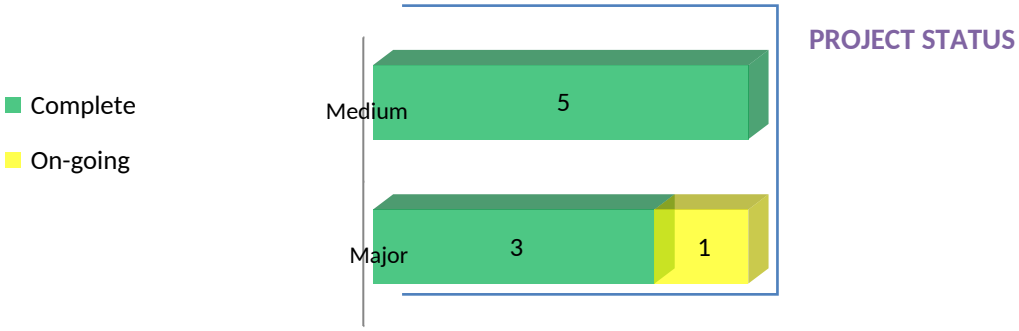
Uttarakhand

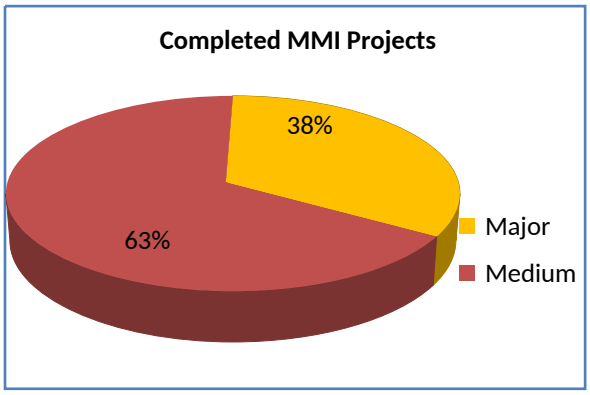
- The State of Uttarakhand covers a total area of 53,483 square kilometers. Total number of districts is thirteen.
- During the 1st Census of Major & Medium Irrigation (MMI) Projects, a total of **9** MMI projects were canvassed in Uttarakhand. Out of these, **4** projects are categorized as Major projects and **5** projects fall under the Medium category.

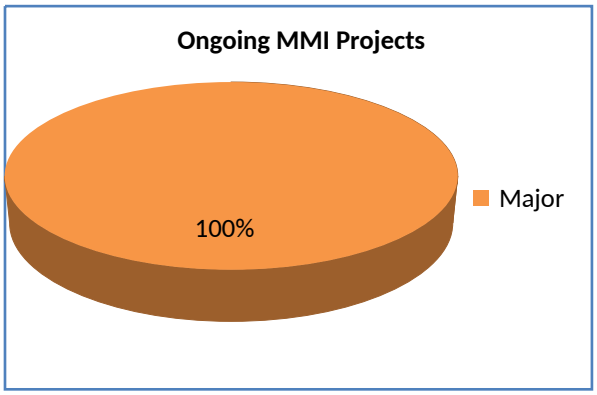
A. Completion Status

- Out of total 9 MMI projects, 8 are completed which includes 3 Major and 5 Medium project. Remaining 1 projects is going on which is a Major project.

Chart 1: Distribution of Major and Medium Projects.







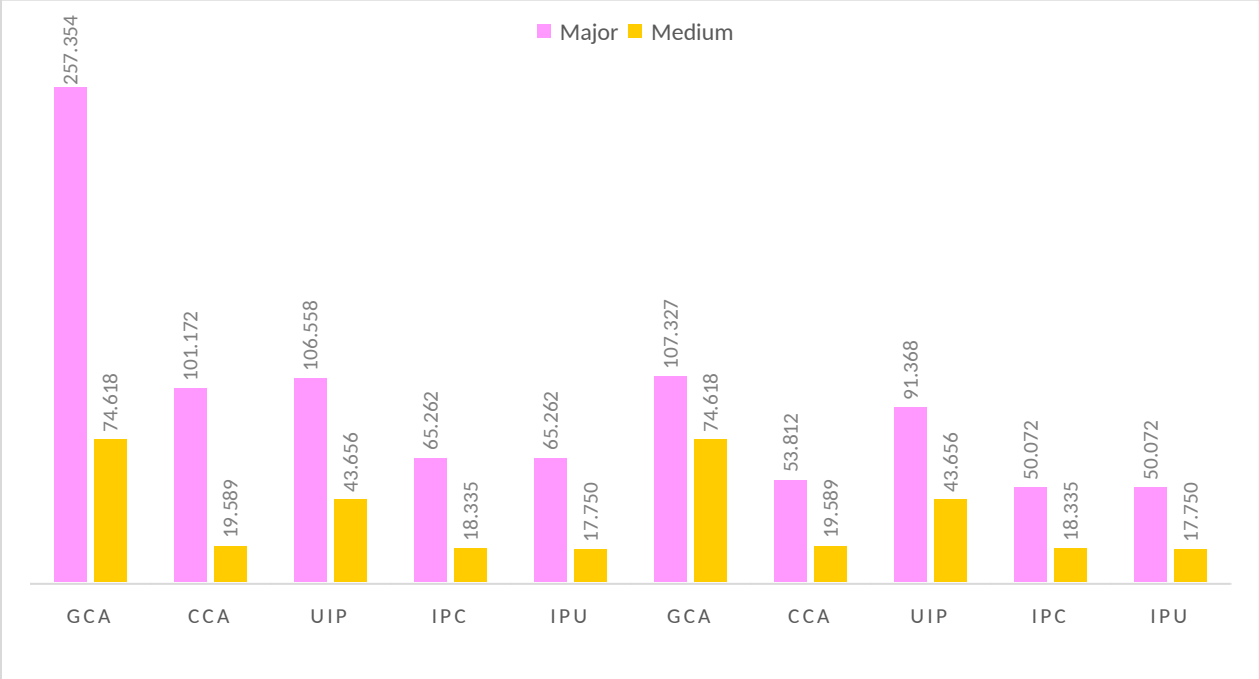
- Out of 4 Major Projects 1 is for irrigation and remaining are multipurpose while out of 5 medium projects, 4 are for irrigation.

Table 1: Nature of Project (number)

Nature of Project	Major	Medium
Irrigation	1	4
Multipurpose	3	1
Total	4	5

B. Coverage

Chart 2: Contribution of completed project in total project (in Th Ha)



Above chart is showing that all complete projects are successfully contributing considering IPC and IPU, as almost no potential loss is reported for these completed projects.

C. Type of Project

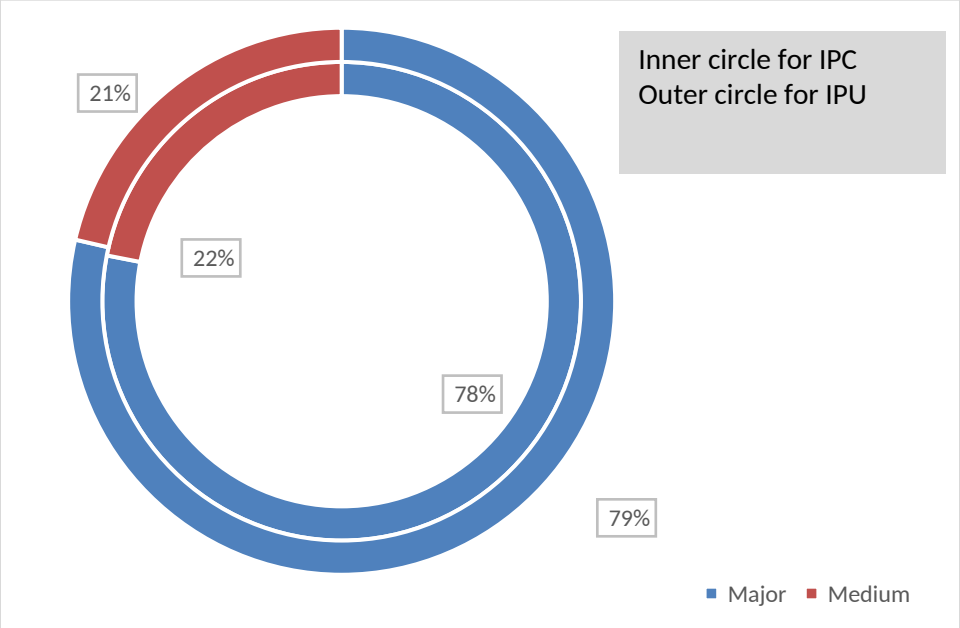
Table 2: Share of different type of project (number)

Project	Storage	Diversion	Total
Major	2	2	4
Medium	2	3	5
Total	4	5	9
Share	44%	56%	100%

- Above table is showing that 44% of all project are of Storage type and 56% of all project are of diversion type and there is no lift irrigation system.

D. Project wise Irrigated Area

Chart 3: Contribution of project in Irrigated area



- Above chart is showing that in total irrigation potential utilization, Major projects are contributing more (79%) than Medium projects.

E. Season wise Contribution of project in Irrigation

Table 3: Season wise utilization in Irrigation (in Th. ha)

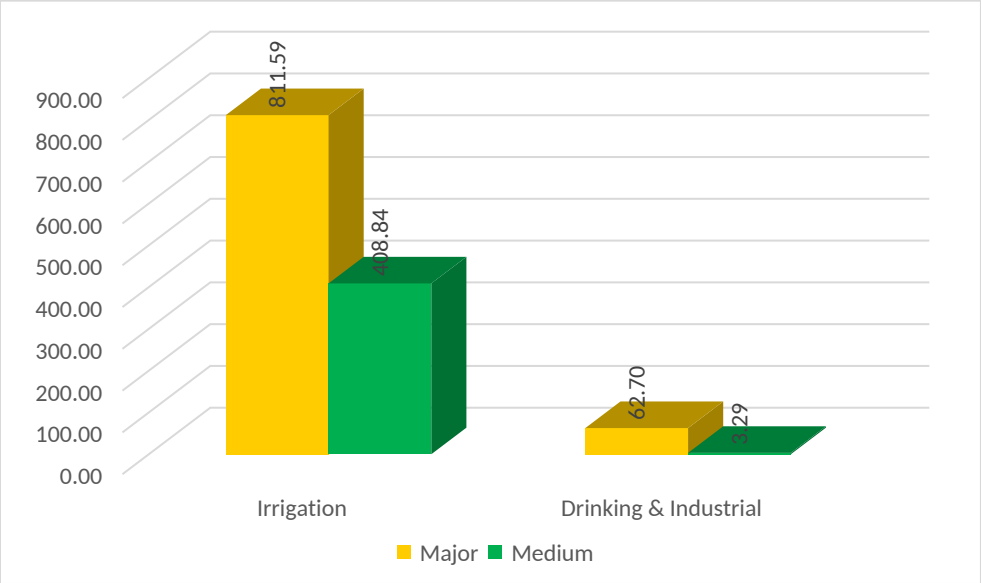
Project	IPU					
	Kharif	Rabi	Perennial	Summer Season (Zaid)	Other	Total
Major	36.37	26.40	1.20	1.20	0.09	65.26
Medium	9.05	8.71	0.00	0.00	0.00	17.75
Total	45.42	35.11	1.20	1.20	0.09	83.01
Share	54%	42%	1%	1%	0%	99%

- Again, these projects are utilizing mostly during Kharif and Rabi season. However, these are being used for irrigation throughout all agricultural seasons.

F. Water Utilisation

- In irrigation, water utilization from Major project are more than that from Medium Projects.

Chart 4: Water Utilization from Major & Medium Irrigation Projects (in Mcm)



G. Associated Program

- No projects are associated with any program.

H. Irrigation Method

- All 9 projects are using flood irrigation method for irrigation.

I. CAD, CADWM, WUA

- No major & medium projects are having CAD covered area and no WUA was formed for these projects.

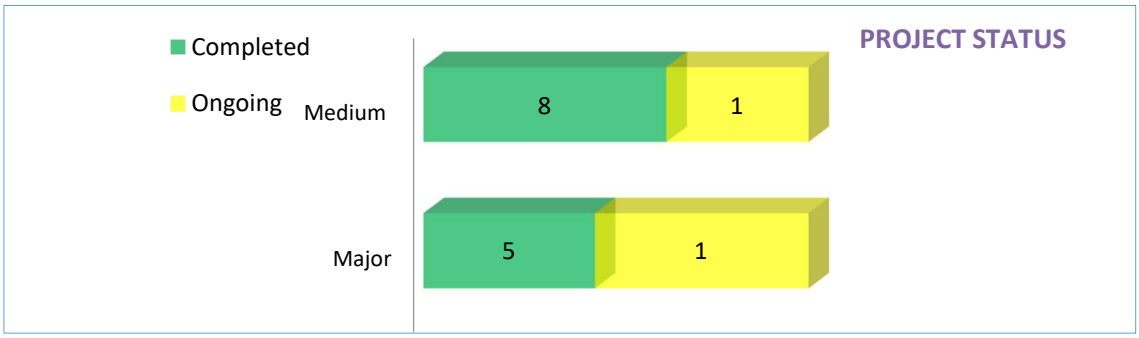
West Bengal

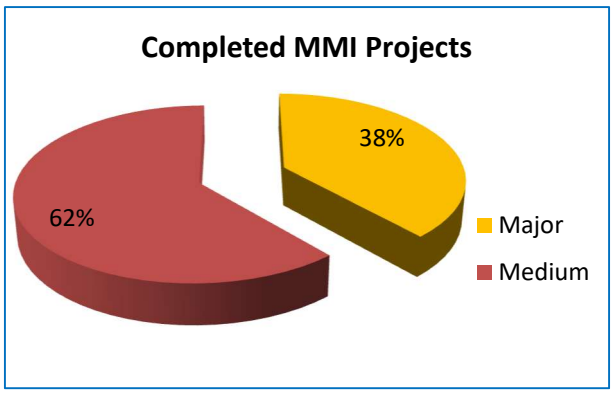
- The State of West Bengal covers a total area of 88,752 square kilometers. Total number of districts is twenty-three.
- During the 1st Census of Major & Medium Irrigation (MMI) Projects, a total of **15** MMI projects were canvassed in West Bengal. Out of these, **06** projects are categorized as Major projects and 09 projects fall under the Medium category.

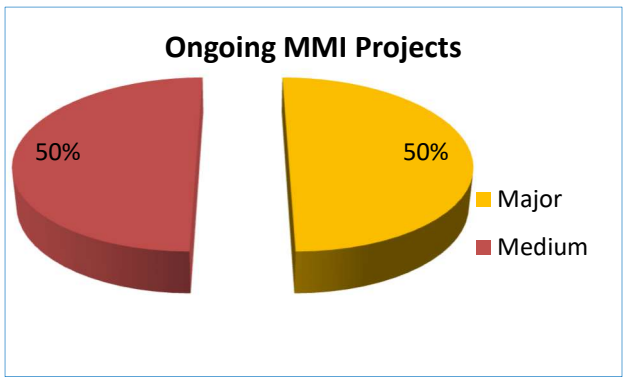
A. Completion Status

- Out of total 15 MMI projects, 13 are completed which includes 5 major and 8 Medium project. Remaining 2 projects are going on which includes 1 Major and 1 Medium project.

Chart 1: Distribution of Major and Medium Projects.







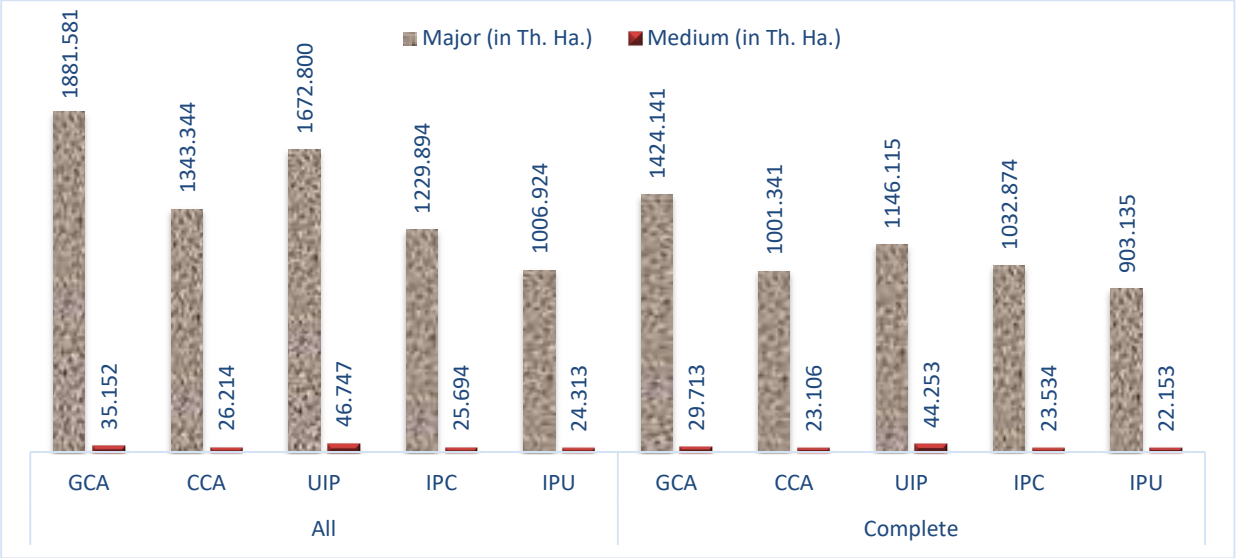
- Out of 6 Major Projects 2 are for irrigation and remaining are multipurpose while out of 9 medium projects, 8 are for irrigation

Table 1: Nature of Project (number)

Project	Major	Medium
Irrigation	2	8
Multipurpose	4	1
Total	6	9

B. Coverage

Chart 2: Contribution of completed project in total project (in Th Ha)



- Above table and chart is showing that all complete project is successfully contributing considering IPC and IPU. Irrigation potential utilized is more than 87% of Potential created for Major completed projects whereas it is more than 95% in case of Medium completed projects.

C. Type of Project

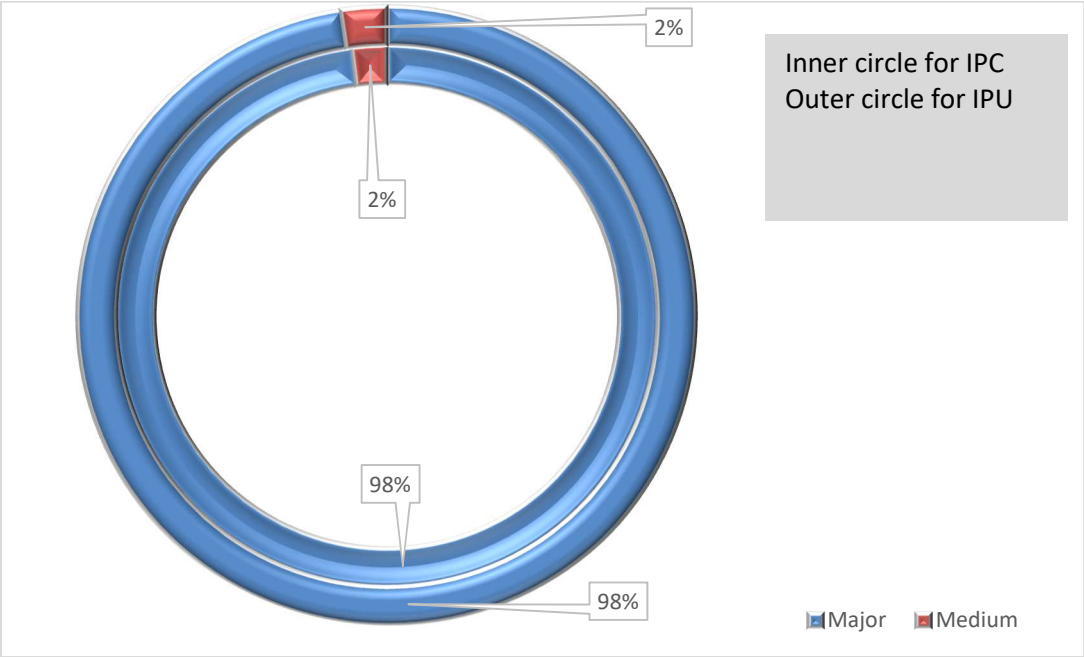
Table 2: Share of different type of project (number)

Project	Storage	Diversion	Storage & Diversion	Storage & Diversion & Lift irrigation	Total
Major	1	3	1	1	6
Medium	7	2	0	0	9
Total	8	5	1	1	15
Share	53%	33%	7%	7%	100%

- Above table is showing that 53% of all project are of Storage type and 33% of all project are Diversion type.

D. Project wise Irrigated Area

Chart 3: Contribution of project in Irrigated area



- Above table is showing that in total irrigation potential utilization, Major projects are contributing more (98%) than Medium projects.

E. Season wise Contribution of project in Irrigation

Table 3: Season wise utilization in Irrigation (in Th ha)

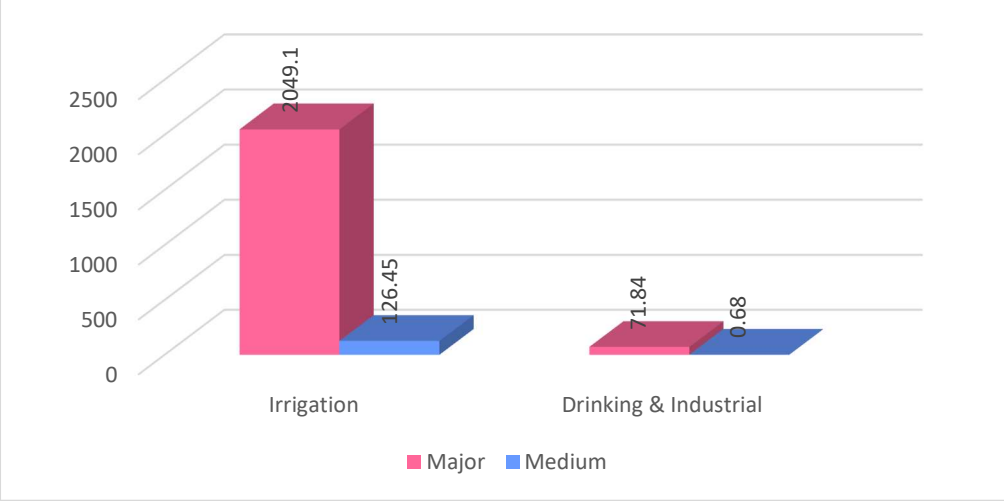
Project	IPU				
	Kharif	Rabi	Bi Seasonal	Summer Season (Zaid)	Total
Major	774.313	172.211	0.700	59.700	1006.924
Medium	21.549	2.764	0.000	0.000	24.313
Total	795.862	174.975	0.700	59.700	1031.237
Share	63%	14%	0%	5%	82%

- Again, these projects are utilizing mostly during Kharif and Rabi season. However, these projects are contributing in irrigation throughout all agricultural seasons.

F. Water Utilisation

- In irrigation, water utilization from Major project are more than that from Medium Projects.

Chart 4: Water Utilization from Major & Medium Irrigation Projects (in Mcm)



G. Associated Program

- Out of 6 Major projects no project is under any program while out of 9 Medium projects, 01 is under some program. Area wise coverage as shown in table 5 is nil.

Table 4: Number of Project under different program

Project	Total number of Project	No. of Major Project Under Different Programs				
		Drought Prone Area Programme	Desert Development Programme	Tribal Area	Flood Prone Area	Left Wing Extremism Affected Area
Major	6	0				
Medium	9	1				

Table 5: Area under different program (in Th Ha)

Project	Area Under Different Programs				
	Drought Prone Area Programme	Desert Development Programme	Tribal Area	Flood Prone Area	Left Wing Extremism Affected Area
Major	0	0	0	0	0
Medium	129	0	0	0	0

H. Irrigation Method

- All 15 projects are using flood irrigation method.

I. CAD, CADWM, WUA

- 2 Major projects are having CAD covered area as shown below and 690 WUA was formed for these projects.
- No WUA was formed for Medium projects.

Table 6: CAD, CADWM and WUA wise Status of Projects

Projects	Total Number Project	Number With Methods of Irrigation			Details of WUA			
		Number of Project	Area of CAD Work Executed from State Govt Funding (in 000'ha)	Area Covered Under CADWM (in 000'ha)	Number of Project	Total Number of WUA Formed	Area Covered Under WUA (in 000' Ha)	Numbers of Members
Major	6	2	3.87	46.93	2	690	25.57	29510
Medium	9	0	0	0	0	0	0	0

Summary of Findings – 1st Census of Major & Medium Irrigation Projects								
State/UT	**Major**	**Medium**	**Total MMI Projects**	**CCA (in Th. Ha.)**	**UIP (in Th. Ha.)**	**IPC (in Th. Ha.)**	**IPU (in Th. Ha.)**	**Ratio of IPU to IPC**
Bihar	30	60	90	3474.647	**11695.813**	**3668.925**	2966.169	0.81
Chhattisgarh	14	32	46	1327.764	**1410.975**	**1002.503**	992.557	0.99
Goa	1	2	3	26.176	**41.153**	**41.152**	27.875	0.68
Gujarat	21	81	102	3622.719	**3363.263**	**2194.462**	2037.998	0.93
Himachal Pradesh	1	9	10	40.433	**69.181**	**55.817**	38.83	0.70
Kerala	12	20	32	353.33	**496.917**	**338.084**	258.121	0.76
Ladakh	0	2	2	6.384	**6.762**	**2.268**	2.268	1.00
Manipur	2	5	7	73.384	**111.328**	**62.489**	58.671	0.94
Rajasthan	32	93	125	4055.532	**3723.881**	**3096.91**	2648.403	0.86
Tripura	0	3	3	13.516	**26.72**	**18.404**	16.354	0.89
Uttarakhand	4	5	9	120.761	**150.214**	**83.597**	83.012	0.99
West Bengal	6	9	15	1369.558	**1719.547**	**1255.588**	1031.237	0.82



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DEPARTMENT OF WATER RESOURCES, RIVER DEVELOPMENT
AND GANGA REJUVENATION, MINISTRY OF JAL SHAKTI, GOVERNMENT OF INDIA