

OPERATIONAL GUIDELINES FOR SIXTH MI CENSUS & CENSUS OF WATER BODIES
(REFERENCE YEAR 2017-18)

1. INTRODUCTION: One of the main objectives of “Rationalization of Minor Irrigation Statistics (RMIS)” a sub-scheme under the Centrally Sponsored Scheme ‘Irrigation Census’ is to conduct Census of Minor Irrigation structures in the country on quinquennial basis. Under the RMIS scheme, 100% Central Assistance is provided to the States/ UTs for conduct of Minor Irrigation Census. Five Censuses have been completed so far with reference years 1986-87, 1993-94, 2000-2001, 2006-07 and 2013-14 respectively. These have helped in preparation of a sound database for Minor Irrigation Sector. The 6th Minor Irrigation Census with reference year 2017-18 is being taken up to build a sound and reliable database on the minor irrigation sector. The data will be used for estimating the availability of Ground Water and formulation of realistic plan for Water Resources development. The scope of Irrigation Census has now been expanded to include Census of Water bodies also with 100% Central Assistance.

For implementation of the RMIS scheme, each State/UT Administration generally identifies a Nodal Department for compilation of Minor Irrigation Statistics for the State/ UT. The head of the nodal Department, designated as ‘Census Commissioner’, will be the in-charge of complete Census work. Under RMIS, State Statistical Cells are generally created in the Nodal Department which assists in organising, coordinating and supervising the Minor Irrigation Census as and when planned by the Centre.

2. METHODOLOGY:

In the 6th MI Census, it is proposed to use the traditional methodology i.e. canvass paper based schedules for capturing the village level data and the MI scheme data from the rural areas. For the census of Water bodies, schedules of water bodies will be canvassed both for rural and urban areas. A smart phone to capture latitude and longitude and photograph of water bodies shall be used in the Census of Water Bodies. Since in the rural areas, the coverage area of both the Censuses i.e Minor Irrigation Census and Census of Water Bodies are the same, convergence in a number of activities like training of field staff, fieldwork, scrutiny etc. is envisaged. The data entry may be done on the online portal developed by NIC only after thorough scrutiny of schedules. Data entry may be done at District or block level or as per availability of resources with the State Nodal Department. States/ UTs should make efforts to complete the field work, data entry and validation work in one year’s time. The validated data would again be examined at the Central Level before generation of final table.

The MI Census data would be collected through canvassing different enumeration schedules for the village and Minor Irrigation schemes. The Village schedule is to be canvassed by the Patwaries through revenue / land records maintained in the office of Government authorities and enquiries from village level workers/gram pradhans etc. Scheme related schedules are to be canvassed by the enumerators through enquiries from the owners of the schemes. In case of institutional schemes, the information may be collected through available records. The schedules of enquiry along with instructions/ guidelines for filling them will be provided separately. As far as canvassing of water body schedule is concerned, it will be canvassed by same enumerator preferably, or other persons as decided by State

Nodal office in Villages. For urban areas, enumerators for water body may be identified for one town or group of town.

While the field work is going on: supervision and checking is required to be done by:-

- i. Enumerator's supervisor,
- ii Block level officers
- iii. District level officers
- iv. State level officers as per the norms prescribed.

Central team along with the State Statistical Cell officials would also visit the State and check the quality of field work. An additional item of scrutiny of 25% of MI scheme schedules and 100% for village schedule has been introduced in the 6th MI Census for ensuring better quality of data. Scrutiny of schedules of water body is also to be undertaken for the new Census of Water Bodies.

2.1 Implementation Guidelines:

- (i) A Steering Committee is to be formed in each State with Secretary of the Nodal Department as Chairman and members from the State Departments of Revenue, Irrigation, Water Resources, Panchayati Raj, State Planning, DES, Rural Development and State head of NSSO (FOD). 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 Nodal Statistical Cell during the Census operations. The Regional Chief Engineer of CWC will also be a member of the Steering Committee. A representative from regional office of CGWB will also be a member of this Committee.
- (ii) Existing training module is to be standardised and put in Audio-Visual form in English/Hindi for uniformity in imparting training.
- (iii) Publicity campaign at State / district level shall be under taken. Funds provided under contingency to be used for advertisement through posters / Media/ Announcement locally through hand held loudspeaker just a week before Census is to start in the villages and Census Commissioners have to ensure timely execution of the same.

2.2 Training Programme for Data Collection:

To ensure quality of data collection, a training-cum-Workshop for the Trainers will be organized at the Central level in New Delhi in which officers from each State/UT shall participate. Regional Training Workshops for the trainers will be organized by the Centre in association with identified host States for all the States/UTs in some regions. An officer of NIC attached with M/o Water Resources, River Development & Ganga Rejuvenation would also participate in these Workshops to discuss issues related to Census data processing. In the Regional Training Workshops, the Nodal officer along with the Technical staff from the Statistical cell of each State/UT shall participate. All of these officers would be trained as trainers. They would impart next level State trainings to be organized by the State Minor

Irrigation Census Commissioners (and Census Commissioners for Water Bodies) at the State/District Headquarters in which the district level officers/ Block Level Officers and enumerators would be trained. A representative from the Centre can participate as an Observer in some such State level trainings. In addition, the District level officers from all the districts, State level NIC officers, State Ground Water Board officers, officers from regional offices of Central Water Commission, SASA/DES Head and DDG, FOD, NSSO of the respective State shall be requested to attend the State trainings. Thus there would be 7 to 8 participants in addition to the number of district officers from each State in such training/workshops. The details of the methodology adopted for the Census, statistical instruments like schedules, instruction manual, concepts and definitions etc. would be discussed thoroughly and necessary clarifications shall be given. Each State will intimate the district level Training schedule in advance to the Centre so that a representative from the Centre can participate in some of these trainings.

2.3 Fieldwork:

The 6th MI Census as well as Census of Water bodies will be conducted under the overall charge of Census Commissioner who will be a Senior Officer of the Nodal department of State / UT concerned. The fieldwork will either be undertaken by the Nodal department itself or entrusted/ outsourced to some other agencies which the State/UT Government considers fit keeping in view infrastructure available with it under intimation to this office. However, for the entire Census operation, Census Commissioner of the State/ UT shall be the pivotal point as far as Government of India is concerned and would be entitled to draw the honorarium for the State level officer. The primary work of collection of data will be carried out by the enumerators both in rural and urban areas (for water bodies). They may be village level workers or village accountants or Lekhpals or Patwaries or any other official designated by the State/UT Government in rural and urban area. The work of supervision will be entrusted to higher supervisor level officers of the field agency. The Supervisors will submit all schedules to the Block development Officer/Officer-in-charge at the block level. However, the overall quality of field work is to be monitored by Block/District level/ State officers, who in order to ensure the correctness of data, will conduct frequent site visits of the schemes and check the entries made by primary enumerators. **Only the officers inspecting/supervising the field work should be entitled to draw the District/ Block level honorarium**, while the honorarium for additional scrutiny of MI Schemes and water bodies shall be distributed to the supervising level officer of the field agency. The objective of the additional scrutiny by the officer next in hierarchy to the enumerators is for improvement in quality of data starting right from the village/urban unit identified.

The primary enumerator should take along-with them the list of all schemes covered in the last census during 2013-14 while going for field work. He should visit and cover all these schemes again. He should also find out from village officials / knowledgeable people / water use association, any new MI schemes which have started functioning after 2013-14.

The primary enumerators, while canvassing the schedules, will visit the owner of the Minor Irrigation Schemes/ water bodies or its next neighbor and collect information on the basis of personal enquiry from him. The physical verification of the schemes/ water bodies will also be done by the enumerators. The purpose of the Census should be explained to the farmers/ owners to win over their confidence in revealing the specific information in respect

of Minor Irrigation Schemes or water bodies as the case may be. Assurance that the data furnished by them would be kept confidential needs to be given to the owners. Certain information relating to the scheme/ water bodies will be collected by the enumerators by physical examination of the scheme. After filling up the schedules, the enumerators are required to deposit all completed schedules to their immediate supervisor for scrutiny. The enumerator will also prepare the summary of all village schedules, schemes schedules and water body schedules in the prescribed format and submit it to his immediate supervisor.

2.4 Sample Check:

The block level officer will visit atleast 5 villages in his block and physically verify the schemes/ water bodies covered, quality of census and the extent of coverage of schemes/ water bodies in the village and scrutinize at least 10% or 300 schedules, whichever is maximum, in order to ensure the correctness of data collected. An additional item of scrutiny of 25% of MI scheme schedules and 100% for village schedule has been introduced in the 6th MI Census for ensuring better quality of data. This is to be carried out by the immediate supervisory officer of the enumerator in the field agency and this is in addition to the 10% of scrutiny of scheme schedules which was being done in 5th MI Census. For Census of water bodies, 25% of schedules shall be scrutinized by immediate supervisor of the enumerator and 10% schedules of water bodies should be scrutinized by block level officer. On completion of the scrutiny and after the field visits; block level officer shall fill up the supervisor's report form and submit all the schedules to the district level officer concerned (with copy to State Nodal Office). At least 1% of the total schedules or 100 schedules, whichever is maximum, shall be selected at random and scrutinized by the district level officer. The district level officer must visit atleast 5 villages in 5 separate blocks to physically verify the quality and coverage of the MI Schemes and water body schedules. After the completion of inspection of the field work and scrutiny of the schedules; the supervisor's report form is to be filled up by the district level officer and submitted to the State Nodal office with a copy to the Centre. The Monthly Progress Reports on the Census sent by the State should adequately reflect scrutiny /inspection details sent by Block/ District level officer along with field work. The schedules are to be handed over by the State Nodal Office to the selected agency for data entry, in the prescribed format. For the processing of data, the web based online software developed by Central NIC, shall be used for data entry, validation, tabulation etc.

For water body schedules, it has to be ensured that the soft copy of photograph of water body is also captured by enumerator by smart phone along with its latitude and longitude. The file name for the soft copy of photo of water body may be Unique Identification number of the water body and its latitude and longitude. The soft copy of this photograph is to be uploaded by enumerator or his immediate supervisor on the online software.

Frequent inspections and sample checks will also be conducted by officers from the State Statistical cells and Central team in the Ministry of Water Resources, RD & GR.

3. PROVISION OF FUND:

As a token of appreciation of work entrusted to various officials in addition to their normal duties and not as compensation or remuneration for additional work, the officials who would be involved in field work, scrutiny, inspection of field work and schedules at the District/ Block/village levels shall be paid suitable honorarium which will be drawn from the grants released to the States/UTs by the Ministry of Water Resources, RD & GR for the 6th Minor Irrigation and Census of Water Bodies. Funds towards honorarium for additional scrutiny to be carried out by the immediate supervisory officer of the enumerator in the field agency have been earmarked. The rates of grant towards honorarium have been decided as below for different administrative levels for primary and supervisory work. The honorarium for each District and Block is fixed and it is expected that only one officer from each District and Block would go to the field for physical verification of the filled-in schedules. Funds for printing of schedules, data entry & validation and contingency have also been earmarked separately. Separate funds have been earmarked for conduct of Census of Water Bodies in urban areas also.

3.1 Enhancement of Rates of Honorarium:

In the 6th MI Census and Census of Water Bodies, rates of honorarium for coordination, supervision and conduct of the field work shall be as under:

6th MI Census

S.No.	Item	Rate (in Rs.)
I	Honorarium	
1	Field Allowance per Village for enumerator (Maximum)	750
2	Patwari Allowance per Village	250
3(i)	Per Block	2640
3(ii)	Per District	5400
3(iii)	State/UT	
4	Per Large State /UT(i.e. States with number of MI schemes \geq 10,000 as per 4 th MI Census including Telangana as per Annexure)	15000
5	Per Small State/UT(i.e. States with number of MI schemes $<$ 10,000 as per 4 th MI Census as per Annexure)	10000
6	Additional Scrutiny per village for 25% schemes and 100% village schedule	300
II	Printing cost per schedule	3
III	Contingency per Village	240
IV	Computerisation cost per schedule (maximum including validation)	8

Census of Water Bodies

S.No.	Item	Rate (in Rs.)
I	Honorarium	
1	Field Allowance per Village for enumerator (Maximum)	600
2	Per Block	800
3	Per District	1100
4	State/UT	3000
5	Additional Scrutiny per village for 25% Water body schedules	100
II	Printing cost per schedule	3
III	Contingency per Village	75
IV	Computerisation cost per schedule (maximum including validation)	8
V	Cost of smart phone (at the rate of 2 smart phones per block with internet charges for 2 months)	(15,000+1,000) for each smart phone

In addition, 20% of total cost of Census of Water bodies has been earmarked towards fieldwork, scrutiny, supervision, inspection, coordination at State level, contingency expenditure etc. **for urban areas** as well as printing cost of schedules and data entry/validation costs.

3.2 Contingency amount is to be spent on

(i) Providing State/ district level trainings to enumerators and supervisors, (ii) advertisement for MI Census, publicity etc., (iii) transportation to be used by the Central and Statistical cell teams only for supervisory work during the census.(The expenditure on transport should not be more than 2% of the total contingency amount for the States except Kerala where it should not be more than 15% of the total contingency fund, as per practice followed in XII Plan). (iv)Providing training honorarium to the District level officers, who would provide training to the enumerators and Block level supervisors maximum upto @ Rs. 1500/- per day including transport(v)Providing Rs 150/ enumerator/ Block officer as TA , DA for attending the training and (vi) any other unforeseen miscellaneous expenditure of contingent nature which may arise during the conduct of the Census, subject to ceiling of total contingency expenditure sanctioned for the State/UT for 6th MI Census. Contingency amount Rs. 75/- per village for Census of Water bodies has been provided, as training, field work etc. of Census of Water bodies will be carried out in convergence with 6th MI Census.

3.3Field allowance:- Rs. 750/- as maximum Field allowance per village for 6th MI Census is flexible and to be fixed by the States/UTs keeping in view the number of MI schemes, the distance and terrain in their States. Similarly, Rs. 600 per village as maximum Field allowance per village for Census of Water Bodies is flexible and to be fixed by the States/UTs keeping in view the approximate number of water bodies, the distance and terrain in their States. The field allowance is flexible and to be fixed by the States/UT after due deliberations keeping in view the no. of schemes, the distances and terrain in their states. For example:

- In a State with normal terrain, if there is large variation in the number of schemes in various regions of the State, the State may decide to give Rs. 375 for villages with < 50 schemes, Rs. 500 for villages with schemes > 50 but < 100, Rs. 625 for villages with Schemes > 100 but < 300 and Rs. 750 for villages with schemes > 300.
- In a hilly State where number of schemes are less and terrain is uniform Rs 375 for villages with schemes < 10, Rs 500 for villages with schemes > 10 and < 20, Rs. 625 for villages with schemes > 20 but < 50 and Rs. 750 for villages with schemes > 50 .
- In plains/hills where distances between schemes is large and schemes are few Rs. 750 can be kept per village even when number of schemes is less.
- For Census of Water body schedules i.e Rs. 300 for villages with < 5 water bodies, Rs. 400 for villages with water bodies > 5 but < 10, Rs. 500 for villages with water bodies > 10 but < 30 and Rs. 600 for villages with water bodies > 30.
- In the Census of urban water bodies, the equivalent geographical area corresponding to 'village' may be ward or Group of wards or town. The size of wards varies from State to State or within the State. So the decision regarding the rate of honorarium per ward or Group of wards or town in a State is left to the State Government subject to a maximum of Rs.600/- prescribed for a village. The State may decide to give Rs.100/- for a small ward, Rs.400/- for a group of 5 to 10 wards or Rs.600/- for a small town, the maximum limit being Rs.600/-.

The rates of honorarium for 25% additional scrutiny will be Rs.100/- maximum per ward/group of wards/town as decided by State Government. Similarly, the contingency per ward/group of wards/town would be limited to a maximum of Rs.75/-.

However, while working out the rate of honorarium, additional scrutiny and contingency for the conduct of Census of Water Bodies in urban areas, care should be taken that the total cost of conducting the Census of Water Bodies in urban areas (i.e. field work, scrutiny, supervision, inspection, coordination at State level, contingency, printing cost of schedules and data entry and validation costs) does not exceed 20% of the total cost (i.e. Rural + Urban) of conduct of Census of Water Bodies in the State.

3.4 Patwari Allowance: Rs.250/- is kept for Patwari who will canvass the village schedule and provide necessary assistance to the enumerator for data collection for both Census in the village. This would be handed over to Patwari immediately after he submits his form.

3.5 40% of the total estimated cost will be released to the States/UTs in advance for initiating work relating to Sixth Minor Irrigation Census and Census of water bodies. Further, 40% of the cost will be released after completion of the primary enumeration/fieldwork and receipt of Utilisation Certificate in prescribed format as per GFR 2017 for the first instalment from States/UTs. The balance 20% will be released after completion of data entry & validation and receipt of final comments of States/UTs on observations of the Ministry on the Census data and Utilisation Certificate for the 2nd installment. The total grant to States /UTs

shall be regulated as per the norms reported in above paras. In addition, grants-in-aid will be provided to host States/UTs for organizing Regional Training Workshops & Data Processing Workshops on behalf of the Ministry, for publication State/UT level Census reports and for meeting balance expenditure of 5th MI Census. The total grant of the Census for both 6th MI Census and Census of Water Bodies) for each State/UT, has been estimated based on the currently available information and may be revised based on the total work done. State shall submit detailed work plan for both Census along with time lines for completion of each stage of Census, at the time of submission of proposal for first instalment.

4. COMPUTERISATION OF CENSUS DATA:

NIC would develop the appropriate online software/ App for 6th MI Census & Census of Water bodies and provide technical support and training in similar Regional Data Processing Workshops to be organized by the Ministry in association with the host States.

This will be followed by State level trainings to be organized by the State Census Commissioner. The user ID and password for accessing the online portal will be provided to the State nodal officers by the time, the data collection work starts in the field. Online data entry, validation etc. will be done by States/UTs.

The provision for capturing of photograph is also kept in Census of Water bodies. The mobile friendly App/ software would be sent to States/ UTs to capture the photograph of water bodies. The same photograph along with the latitude and longitude of the water body has to be uploaded on the online portal with the schedule of the concerned water body. For easy identification of photograph, the name of photograph file would be 21 Digit Unique Identification number of the water body and its 12 digit latitude and longitude.

The Census data entered in the online portal by the States/UTs would again be scrutinized at the Central level and observations/ queries thereon would be referred to States/ UTs for possible corrections/clarification. On-line tables would be generated on the portal on the basis of data fed by States/ UTs. The on line tables generated through portal shall be utilised for compiling National Level Report. The State Census Commissioners shall use the corrected data as available on the online portal for generating micro level tables as per their requirement.

5. SUBMISSION OF MONTHLY PROGRESS REPORT:

The State/UT Governments will submit Monthly Progress Report both for 6th MI Census & Census of Water bodies in the prescribed format to the Ministry by post/by Fax/email. Besides that, real time progress of data entry and validation can be accessed online through the software provided by the Ministry. This would help in monitoring the progress of Census work, taking remedial measures wherever required. The States/ UTs may also devise their own mechanism to monitor the flow of work regularly. In addition to the Monthly progress report, a report regarding completion of field work from all villages/towns is to be submitted as per the prescribed format to ensure completion of field work at enumerator/supervisor/block and district level.

6. TENTATIVE PROGRAMME OF WORK FOR MINOR IRRIGATION CENSUS

1. Release of Central grant by the Centre - As and when demanded by States/UTs
2. All India Training Workshop - March-2018
3. Regional Training Workshops - April-June2018
4. Printing of schedules and guidelines - May-June-2018
5. State /District Training programmes - May-July-2018
6. Main fieldwork & scrutiny - August-2018 December, 2018
7. Data Entry & validation by States - October-2018 to April-2019
8. Examining of tables by Central Ministry - January-2019 to June-2019
9. Report drafting and Publication - October, 2019

Annexure

List of States with No. of Schemes > 10000 as per 4th Minor Irrigation Census

S. No.	Name of States
1.	ANDHRA PRADESH
2	ASSAM
3	BIHAR
4	CHHATTISGARH
5	GUJARAT
6	HARYANA
7	HIMACHAL PRADESH
8	JHARKHAND
9	KARNATAKA
10	KERALA
11	MADHYA PRADESH
12	MAHARASHTRA
13	NAGALAND
14	ODISHA
15	PUNJAB
16	RAJASTHAN
17	TAMIL NADU
18	TELANGANA
19	UTTAR PRADESH
20	UTTARAKHAND
21	WEST BENGAL

List of States with No. of Schemes < 10000 as per 4th Minor Irrigation Census

S.No.	Name of States
1.	ANDAMAN & NICOBAR ISLANDS
2	ARUNACHAL PRADESH
3	CHANDIGARH
4	DADRA & NAGAR HAVELI
5	DELHI
6.	DAMAN & DIU*
7	GOA
8	JAMMU & KASHMIR
9	LAKSHADWEEP*
10	MANIPUR
11	MEGHALAYA
12	MIZORAM
13	PUDUCHERRY
14	SIKKIM
15	TRIPURA

Note *: 4th MI Census not conducted in Daman & Diu and Lakshadweep.