

F.No.15011/1/2017-CADWM
Ministry of Water Resources, RD & GR
CADWM Wing

Room No. 438, Krishi Bhawan, New Delhi
Dated 7th June, 2017

Subject- MINUTES OF THE FIRST MEETING OF PROJECT IMPLEMENTATION REVIEW COMMITTEE (PIRC) FOR CADWM IMPLEMENTATION OF 99 PRIORITIZED IRRIGATION PROJECTS UNDER PMKSY HELD AT BHUBNESHWAR ON 28TH -29TH APRIL 2017.

First Meeting of Project Implementation Review Committee (PIRC) for CADWM Implementation of 99 Prioritised Projects under PMKSY was held at Bhubaneswar on 28th - 29th April, 2017 under the Chairmanship of Commissioner (CAD), MoWR, RD & GR.

The Minutes of the Meeting approved by the Chairman is enclosed for information and necessary actions on the decisions taken in the meeting. The status of actions taken on the decisions is to be deliberated in the next meeting of PIRC.

Encl: Minutes of the Meeting


(J.R. Boro)
Senior Joint Commissioner (CAD-I)
Tele/fax-23383090

Distribution:

1. Principal Secretary/Secretary, Gov. Of Andhra Pradesh, Assam, Bihar, Chhattisgarh, Goa, Gujarat, Jammu & Kashmir, Jharkhand, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Manipur, Odisha, Punjab, Rajasthan, Telangana and Uttar Pradesh.
2. All Chief Engineers, CWC of the Region concerned to above States.
3. Chief Engineer, PMO, CWC, Sewa Bhawan, R.K. Puram, New Delhi
4. Secretary, India NPIM, New Delhi.
5. Director WALMI of concerned State.
6. All participants of the meeting.

Copy forwarded to:

1. PPS to Secretary, MoWR, RD & GR, Shram Shakti Bhawan, New Delhi
2. PPS to Chairman, CWC, Sewa Bhawan, R.K. Puram, New Delhi

MINUTES OF THE FIRST MEETING OF PROJECT IMPLEMENTATION REVIEW COMMITTEE (PIRC) FOR CADWM IMPLEMENTATION OF 99 PRIORITIZED IRRIGATION PROJECTS UNDER PMKSY HELD AT BHUBNESHWAR ON 28TH -29TH APRIL 2017.

The First meeting of Project Implementation Review Committee (PIRC) for CADWM implementation of 99 prioritized Irrigation Projects was organized at Bhubaneshwar on 28th - 29th April 2017 under the chairmanship of Dr. B.R.K.Pillai, Commissioner (CAD), Ministry of Water Resources RD&GR. The two days program included field visit on first day (28th April) showcasing the Participatory Irrigation Management efforts of Odisha through successful *Pani Panchayats*, followed by detailed deliberations on second day (29th April) covering review of CADWM progress and discussions on shortcomings/ bottlenecks encountered in project implementation. Shri Pradeep Kumar Jena, Principal Secretary, Department of Water Resources, Odisha, also graced the occasion with his address to the participants before commencement of review.

2. All 18 States which are having prioritized Projects along with CWC-CAD Cells and WALMIs of concerned States were invited to attend the meeting. Officers of 13 States (namely, Andhra Pradesh, Bihar, Chhattisgarh, Gujarat, Jharkhand, Karnataka, Kerala, Madhya Pradesh, Manipur, Odisha, Punjab, Rajasthan and Telangana) attended the meeting, while Officers from 5 States (namely, Aasam, Goa, J&K, Maharashtra and Uttar Pradesh) have abstained. All concerned Directors of CWC-CAD Cells, except those belonging to Bhopal and Lucknow, attended the meeting. Shri Sanjeev Aggarwal, Chief Engineer, PMO, CWC, Shri Y.D. Sharma, Secretary India NPIM and Smt. Chitra Arumugam, Special Secretary, DoWR, Odisha, also attended the two day program. The list of participants is given at **Annexure-I**; and a summary record of PIRC's decisions and recommendations is given at **Annexure-II**.

FIELD VISIT ON 28th April 2017

3. The field visit was organized in two groups covering projects where CADWM programme has been implemented under Odisha Community Tank Management Programme (OCTMP) under JICA, World Bank Assisted Projects, RKVY and the projects implemented under Centrally Sponsored CADWM programme. Visit to the sites of prioritized projects could not be included for reasons of large distances (more than 500 KM) from Bhubneshwar. The key observations of the PIRC in context to activities of CADWM in the visited projects are as under:-

- i. The Participatory Irrigation Management (PIM) has penetrated to a deeper extent and is substantially effective. There is a heightened sense of team work amongst farmers, coupled with a high level of awareness of the collective benefits accruable through PIM. There is substantial jump in the level of farm production, and also in farmers' income as a direct outcome of the PIM. WUAs have elected body which functions with a proper office set-up with well maintained records of membership, farm plots, details of expenditures etc.

- ii. The Project Implementing Agency (PIA) has put in immense efforts and also adopted innovative approach in bringing the PIM to a successful level. Some of the laudable approach, which can be emulated by other PIAs as well, include the following:
- Bringing a shift in the implementation objective from “handing over by the department” to “taking over by the WUAs”, which could draw focus on the capacity related issues of WUAs.
 - Bringing PIM related interventions simultaneously with efforts on engineering saturation.
 - Hiring of a centralized accounts auditing agency, and evolving effective methodology for handholding support and timely auditing.
 - Training of farmers/ WUA office bearers at Auroville (Pondicherry) which helped in team building and bringing a qualitative change in their vision.
 - High level of empowerment of WUAs (It was informed that WUAs will be shortly empowered for fixing water tariff as well as its collection).
 - High level of coordination amongst different agencies enabling holistic development of village community through agricultural livelihoods support services for development of fisheries, horticulture and poultry; with successful diversification into more market oriented agriculture (e.g. vegetables and mushroom) and livestock production (e.g. local variety of chicken); and equitable development involving women and weaker sections.
 - Holding of ‘Pani Panchayat Fortnight’ event/ festival for promotion of PIM, facilitating of cross-learning, and encouragement to WUAs through awards.
- iii. The engineering CADWM interventions have been implemented through WUAs; some of the observations calling for improvements in future endeavour are listed below:
- Only a limited network of field channels is being targeted confining the channelized flow of water to few fields of the Culawa/ outlet Command, and the balance fields are getting irrigated through the inefficient system of field-to-field irrigation.
 - The length of lined field channel (presently about 19-20 meters per hectare) can be enhanced further for same cost by reduction in the size of channel (which is more than 1 cusec capacity at present).
 - At some places prevalence of water logging problem was seen with cause attributable to excessive seepage of water from canal constructed in filling. Noting that the issues were localized, the team suggested construction of drains running parallel to the canal embankment (in limited affected areas) for reuse of drained water to the nearest possible fields.
- iv. In view of the strong participation level of farmers, the following may be considered for progressive improvement:
- Provision of suitable measuring devices and control structures may enable WUAs to gradually adopt the concepts of water budgeting and help in its regulation; and it can also pave way for enforcing differential water pricing for

the cash crops. A small-scale application of canal automation, integrated backward from the field level, can provide a cost effective and technologically viable option.

- b. Cooperative farming leading to pooling of land resources may facilitate efficient water utilization; much higher agricultural productivity; lowering of input costs; and better market returns. In this scenario, the cost effective system of mechanized Pivot irrigation can also be adopted for implementation of micro-irrigation aiming for substantial improvement in cropping intensity as well as crop productivity.

Meeting on 29th April 2017

4. In a function held ahead of project implementation review meeting, Smt. Chitra Arumugam, Special Secretary, DoWR, Odisha welcomed the participants and expressed appreciation for selection of Odisha for the first meeting of PIRC. She outlined the PIM activities in Odisha under OCTMP, AIBP, RKVY and other Programmes, explaining the challenges encountered and lessons learnt. She also outlined the mantra of her team's success as 'Compassion for the rural people, upfront involvement of the farmers and targeted beneficiaries, and the team owning-up responsibility for their capacity building'. Shri S. K. Jain, Engineer-in-Chief, WRD, Odisha gave a brief of the 8 prioritized projects presently included under CADWM Programme, and also informed that activities related to DPR preparations for another 35 projects proposed under new scheme ISBIG have commenced. Dr. Pillai, Chairman, PIRC, expressed his gratitude to Shri Jena, Principal Secretary, Odisha, for facilitating the first PIRC meeting at Odisha; and he also thanked Smt. Chitra Arumugam and her team for the arrangements made for PIRC's field visit and meeting. Shri Pradeep Kumar Jena, Principal Secretary, Odisha referred the program day as auspicious, it being the day for commencement of sowing by farmers and also the day for commencement of Chariot construction for the Bhagwan Jagannath Rath Yatra. He then outlined the goal of Govt. of Odisha for extensive and sustainable irrigation, citing the case of Upper Indra Irrigation Project which converted Kalahandi District from a drought affected area to a leading area in food grain production. He also drew attention to the need for: (i) equitable distribution of water to the tail enders, (ii) reduction in water losses from conveyance system, (iii) enhanced productivity through change in cropping pattern, (iv) use of underground pipe lines for eliminating issues of land acquisition, (v) enhanced coverage of micro-irrigation, (vi) use of SCADA, (vii) partnership with NGOs, (viii) at least 1% provision in budget estimates for capacity building of farmers.

5. The meeting of PIRC commenced with a short film on Odisha Community Tank Management Programme (OCTMP) highlighting the success of PIM. During the follow-up discussion on PIM, the modalities and road map for PIM implementation in 99 projects were also reviewed; and following was decided by the PIRC:

- i. Focus of non-structural intervention under CADWM shall be on "Taking over of irrigation system by WUAs" as done in case of Odisha.

- ii. Measures for creation of WUAs (wherever not already existing) and WUAs capacity building shall be preceding the structural intervention, or at the most taken up simultaneously with initiation of structural intervention.

6. On the issue related to requirement of large manpower as evidenced in case of PIM in Odisha, Dr. Pillai clarified that the present guidelines provide for creation of incremental establishment and booking of its cost under non-structural interventions. He further pointed that for each hectare of command area, out of Rs. 5000 allocated for non-structural intervention, about Rs. 1800 is for the functional grant and infrastructure grant payable to WUAs – assuming one WUA per 500 hectare. Thus, Rs. 3200 per hectare (about 8% of the project cost of Rs. 40,000 per hectare) is available as a flexible component which State governments can judiciously use for: (i) trainings and other capacity building measures directed at farmers, including Auroville like trainings; (ii) engagement of social facilitators for providing hand-holding support to the WUAs; and (iii) hiring of any other consultant/ staff essential for successful completion of project.

7. On a related issue raised by some members regarding engagement of social facilitators by the Union Ministry (as brought out in the guidelines), Dr. Pillai clarified that the cost will be booked under the non-structural component of the concerned project irrespective of hiring of the social facilitators by Centre; he also informed that a final decision on engagement of social facilitators is pending for competent level approval. On request of some members and after a brief deliberation, the PIRC agreed on following recommendation:

- To amend suitably the Item-II of Annexure-VI (Cost Norms & Procedure for Computation of Ceiling Cost) of the 'Guidelines for Central Assistance for CAD Works in Prioritized AIBP Funded Irrigation Projects' so as to:
 - a. Permit States Governments to engage social facilitators on their own, in case of delays encountered in engagement of social facilitators by the Centre;
 - b. Include components of agricultural livelihoods support services for overall benefit of target group (including women and people deprived of farm lands) mainly through convergence with other extant schemes.

8. Incorporating views of various members on the density of CAD interventions as observed during field visit, the following was decided by PIRC with regard to 99 projects:

- i. The CAD works shall ensure flow of channelized irrigation water to every individual farm under the targeted Culawa/ outlet command/ Chak through the combination of lined and unlined channels.
- ii. The layout of field channel shall be designed to feed farms on both sides of the channel, and an optimal length of the channel network (including both lined and unlined portions) shall be arrived at in a manner acceptable to the farmers of the targeted Culawa/ outlet command/ Chak.
- iii. The lined portion of channel shall be created ensuring: (a) its start-up from the Chak outlet, (b) its continuity without breaks, and (c) maximum coverage along the main

limb. The guidelines has set ceiling costs for lined channel solely for the purpose of computation of Central Assistance; States are free to decide the lining proportion as per actual requirement.

- iv. The complete layout of the field channels for providing channelized irrigation water to every individual farm through the combination of lined and unlined channels shall be endorsed by respective WUA by recording of signature on layout plans(s). The presentable copy of the layout(s) drawn to an appropriate scale shall be laminated and kept in the office of WUAs as permanent record.

9. Other observations made by members covered issues of: routine maintenance of field channel; standardization of design for field channel; variation in cropping pattern; need for installation of control and measurement devices; need for lining of feeder canals before lining of field channels; improving financial strengths of WUAs; need for introduction of warabandi; reclamation of waterlogged area; ERM of earlier completed CAD works; WUAs' elections; need for bringing changes in PIM Act; micro-irrigation in existing projects; execution of CAD works by WUAs etc. Some of the key issues were further deliberated by Dr. Pillai, Shri Sanjeev Aggarwal and Shri Y.D.Sharma; and following clarifications/decisions were given:

- i. In principle, the control and management of irrigation network below the government controlled outlets is the responsibility of Water Users' Association. The CADWM program has been taken up to facilitate the process of creation of WUAs and their taking over of the control and management of irrigation system (i.e Participatory Irrigation Management); and the completion (saturation) of engineering works under CADWM structural interventions is only a means for seeking the PIM objective and not an objective in itself. This is the reasons why land is not acquired by government for CADWM interventions, and the assets created under CADWM not accounted as government assets. For this basic reason, the regular maintenance of field channel created under CADWM program shall not be construed as responsibility of government; and funds shall not be released by default for its routine maintenance. And, for the same reason the earlier completed CADWM projects are not being again taken up under ERM route.
- ii. In case of construction of field channel, standardization can be beneficial in terms of ease of doing, quality control, comparison of cost of construction etc.; at the same time they may limit the advantages available in terms of use of local material, local skills, and traditional irrigation practices. As an optimal solution, it was decided that:
 - CWC Headquarter, in consultation with CWC CAD Cells, will take up the task of standardization of field channels incorporating multiple options for local adaptation. CWC will also explore the measures available for installation of control and measurement devices in the field channels. The outcome of the exercise will be made available in the form of a 'Manual for Construction of Field Channels' within four months time.

- iii. The issue of prior lining of feeder canal shall not be a pre condition for taking up lining of the field channels in command area for two reasons: firstly, larger water-use efficiency is achievable from lining of field channel than from lining of feeder canal; and secondly, since the later-day lining of feeder canal can only raise the outlet level, it may not pose any problem in operating an existing lined field channel. However, exceptions can be made in such cases where the Department is aiming for increase in the extent of command by lining of the canal network and a later-day change in size of the field channels is anticipated.
- iv. The overall improvement in financial strength of WUAs is essential for their long term sustainability. However, this shall not be attempted by consideration of higher grants for WUAs; rather they shall be empowered for taking financial decisions on their own in relation to water tariffs, differential pricing of water, fines for deferred payments, share in profit margins for common services, etc.
- v. The concept of warabandi, for equitable distribution of the available water through rotation of supplies, is built-in in the optimal design of irrigation canals; and its exercise is not optional but essential. However, a greater level of coordination and communication needs to be established with WUAs for determination and enforcement of a predetermined schedule specifying year, day, time and duration of supply to each Chak; and a cascading communication and coordination is also required between a WUA and the individual farmer for ensuring timely supply of water in proportion to the size of farmer's landholding in the outlet command and the choice of crop.
- vi. The rampant variation in cropping pattern vis-a-vis assumptions made in original estimation of project's irrigation potential is the leading cause for non-equitable distribution of irrigation water in command. However, enactment of irrigation laws in this regard and their strict regulations may not be very fruitful. Instead, the issue at best can be resolved by market level intervention for farm produce influencing farmer's crop choices; or by demand-side management of irrigation water achieved through: (i) deeper penetration of water education; (ii) empowerment of WUAs for levying differential pricing; and (iii) control on irrigation releases to WUAs at government controlled outlets (for successful outcomes, the suggested interventions for the demand-side management shall be implemented in the sequence as stated).
- vii. Any proposal for reclamation of water-logged area shall be tailored keeping in mind the future scenario evolving from higher application efficiency targeted under CADWM. In areas where the water logging is caused by other sources such as canal leakage, the intervention shall be directed at the root cause. Only in cases where water logging is attributed for reasons of soil quality, the interventions of surface and sub-surface drainage shall be attempted; and even in such cases, the implementation of micro-irrigation will be a more desirable action.

- viii. A greater level of awareness and vision needs to be built-in through capacity building programs directed at WUAs for ensuring timely and regular elections. The shortcut of unified notification, for same day State-level election, though effective for meeting the requirement of election, is fraught with the risks of politicisation of the process. The issue of bringing improvement in the provisions of PIM Act is being looked into by a group of experts in IndiaNPIM; and a modified Model PIM Act will be prepared based on recommendations of the group which will be shared with all States for enactment, or amendment of the prevailing Act.
 - ix. The present guideline mandates micro-irrigation coverage in at least 10% of the CCA of the project. In exceptional cases, the shortfall in micro-irrigation target from one project may be shifted to (more suitable) another project within the 99 list; and in this manner, some of the lift irrigation schemes can be targeted for 100% micro-irrigation in a cost effective manner benefitting from economies of scale.
 - x. Involvement of WUAs in planning of field channel has been desired without making it mandatory that actual work is also to be executed through WUAs. The execution of the works through WUAs' have the limitations of: (i) attracting contractors in WUA's elected body if large packages are given; (ii) work progress becoming very slow if small packages are given; (iii) absence of mechanization and quality of works that can come from established large contractors; (iv) absence of competitive pricing. Hence for the CADWM works of 99 projects in a mission mode, targeting over 72 lakh hectare within a short period of 3 years, it is desirable to go for large contract packages with stipulation for prior consent of farmers/ WUAs in planning of the field channel layout.
10. A presentation on the newly developed web portal for CADWM Management Information System (MIS) was made by Director, NIC. A live demonstration of the website was also made highlighting the features and user-friendliness of the portal, and the same was appreciated by the participants. It was agreed that portal will be allowed to run on a test mode for next 2 weeks for familiarization of the State Nodal officers; and accordingly login-id and password were shared with the participants. Participants were requested to contact NIC officials for trouble shooting and improvement related feedback.

State-wise Presentations and Review of Progress

11. **Karnataka:** There are 5 prioritized Projects namely:- Rameshwara, Upper Tunga, Bhima LIS, Karnja, and NLBC in the State, out of which first 3 projects have been included under CADWM Programme. By 2016-17 an amount of Rs 28.47 crore have been spent in Rameshwara Project and one Water User Association have been registered, and it is targeted to registered 21 WUAs during 2017-18. In Upper Tunga Project an amount of Rs. 16.74 crore has been spent by 2016-17 and no WUAs have been registered. State Officer informed that all 186 WUAs will be registered during 2017-18. In case of Bima LIS Rs. 8.13 crore have been spent and 33 WUAs have been Registered and reaming 14 WUAs will be registered during 2017-18. In case of Karanja Project, the State Govt. has submitted DPR to CWC but

the canal system in the project required regressive repair and maintenance so the CADWM work could be successful; and on this remark CWC has held the DPR and requested State to submit compliance and road map. State Officer informed that DPR of NLBC has been submitted to CWC on 7.4.2017; CWC Officer from Bangalore informed that DPR will be processed shortly. Following points were also agreed for urgent action:

- i. State will submit the status of canal system of Karanja Project to CWC and get clearance of DPR of CADWM.
- ii. State Govt. will bring greater coordination between CADA officials and WRD officials, and also work in close coordination with CAD Cell of CWC.
- iii. State will submit release proposal for 2017-18 along with MoU and other information as mentioned in the MoU to CWC.

12. Gujarat: In the State of Gujarat there is only one project namely, Sardar Sarovar, which is under implementation as phase-I and Phase-II. Up to 2016-17, about 6 lakh ha CCA has been completed out of total CCA of 14.228 Lakh ha, and remaining CCA will be completed by 2018-19. A total of 2322 WUAs has been registered including about 130 during 2016-17. Following points were agreed for urgent action:

- i. Instead of conventional distributaries and minors, underground pipes are being installed and outlets are provided for 7-8 ha. Since no field channel is planned below such outlets, State must ensure that water reaches each field, and field-to-field irrigation gets avoided. If required, field channel may be planned beyond the UGPL outlets.
- ii. State should submit release proposal for 2017-18 along with MoU (with revision, if felt required) and other information as mentioned in the MoU to CWC, Regional Office.

13. Rajasthan: There are two prioritized projects namely:- Narmada Canal and Modernization of Gang Canal. The work in Gang Canal is being implemented in two phases and about 62,000 ha area has been developed by 2016-17 against total CCA of 1,63,128 ha. All 180 WUAs proposed have been formed, including 35 during 2016-17. Narmada Canal Project, being implemented with installation of sprinkler systems under AIBP, is yet to be included under CADWM programme. Following points were agreed for urgent action:

- i. State must ensure submission of DPR of Narmada Canal Project (even if for non-structural components) within a month through CWC for inclusion under CADWM Programme.
- ii. State should submit release proposal for 2017-18 along with MoU and other information as mentioned in the MoU to CWC, regional office.

14. Punjab: In the State of Punjab only Kandi Canal Extension Phase-II Project is under prioritized list. It was informed that CADWM work estimate exist in the total estimate of AIBP and about 60% of the CCA has been developed by the State Government; all the distribution system in the project is with underground pipeline with gravity flow; and irrigation outlets are for 6-8 acres of land. Although 158 WUAs are proposed, but have not become functional; it was informed that the farmers are not willing to pay 10% of their share in functional grant. Following points were agreed for urgent action:

- i. State must ensure that all fields are getting channelized water at individual field's outlet level, and field-to-field irrigation is avoided.
- ii. State should submit DPR for the balance CCA of Kandi Canal extension, Ph-II for inclusion under CADWM programme to CWC, Regional office.
- iii. States shall develop innovative approach for the successful functioning of the WUAs; lessons of Odisha may be incorporated.

15. Andhra Pradesh: In the State of Andhra Pradesh there are 8 prioritized projects out of which only one project, namely: Gunddlakkama, has been included under CADWM programme till 31st March, 2017. It was informed that DPRs of other 7 Projects are under preparation and will be submitted to CWC within one and half months. Following points were agreed for urgent action:

- i. State must fast track submission of remaining 7 DPRs to CWC.
- ii. State shall initiate action for creation of WUAs in all projects in advance.
- iii. State Govt. should work in closed coordination with CAD Cell of CWC.
- iv. State should submit release proposal for 2017-18 along with MoU and other information as mentioned in the MoU to CWC.

16. Telangana: There are 11 prioritized projects in the state of Telangana; all have been included under CADWM Programme in March 2017. WUAs are yet to be constituted in these Projects. Following points were agreed for urgent action:

- i. State shall ensure formation of WUAs in all projects before starting the work.
- ii. State Govt. should work in closed coordination with CAD Cell of CWC.
- iii. State should submit release proposal for 2017-18 along with MoUs to CWC.

17. Madhya Pradesh: There are 13 prioritized Projects in the State of M.P out of which 12 Projects have been included under CWDM Programme. The DPR of Bargi Project is yet to be submitted by State Govt. An area of 212.475 thousand ha has been completed by March 2017 with an expenditure of Rs. 433.019 crore. It is targeted to develop 139.206 thousand ha with an estimated expenditure of Rs. 346.82 crore during 2017-18. It was informed that the works in the state are being taken by WUAs themselves so all proposed WUAs has been formed. It was also informed that except construction of field channel no work could be taken in the Projects. Following points were agreed for urgent action:

- i. State must ensure that functional grants and infrastructure grants are provided to WUAs.
- ii. DPR of Bargi Project should be submitted through CWC office within a month.
- iii. State should submit release proposal for 2017-18 along with MoU to CWC.

18. Chhattisgarh: There are 3 prioritized projects in the State but none of the Project has been included under CADWM programme. It was informed that DPRs submitted to CWC have been returned with comments; State will submit their compliance within a month. Following points were agreed for urgent action:

- i. State shall fast track resubmission of DPR incorporating compliance of CWC comments.
- ii. Formation of WUAs shall be taken up in advance

iii. State Govt. should work in closed coordination with CAD Cell of CWC.

19. **Bihar:** In the State of Bihar there are two prioritized Projects, namely: Durgawati and Punpun. At present the work in Durgawati Project is under implementation; State govt. has requested to replace Punpun Project with some other Project, which is yet to be decided. In Durgawati Project, till March 2017 field channels have been constructed in 4206 ha with an expenditure of Rs. 17.4 crore. As per target, the Project will be complete by 2017-18; it is targeted to develop 25 thousand ha area during 2017-18. It is targeted to form 30 WUAs; for which work is in process. Following points were agreed for urgent action:

- i. State must ensure formation of WUAs and provide functional grant to WUAs.
- ii. State Govt. should work in closed coordination with CAD Cell of CWC.
- iii. State should submit release proposal for 2017-18 along with MoU and other information as required to CWC.

20. **Manipur:** In the State of Manipur there are two projects, namely: Thoubal and Dolaithabi projects. Both projects have been included under CADWM programme but the work could not be started as AIBP work is incomplete. State was requested to expedite the AIBP component.

21. **Jharkhand:** In Jharkhand there is only one project, namely: Subernarekha, which is yet to be included under CADWM Programme. It was informed that DPR is under preparation and will be submitted to CWC as early as possible. State was requested to expedite the DPR.

22. **Kerala:** There are two priority projects, namely: Karapuzha and Muvattapuzha. Only Muvattapuzha is included under CADWM Programme; and DPR of Karapuzha is yet to be prepared by State. It was informed by State that since the CAD department in the State have been closed, the work will be now implemented by Irrigation Department itself. About 40 WUAs, including 15 in 2016-17, have been formed against target of 146. Following points were agreed for urgent action:

1. State should submit DPR of Karapuzha within two month to CWC.
2. State should submit release proposal for 2017-18 along with MoU and other information as required to CWC.

23. **Odisha:** In the State of Odisha all 8 prioritized Projects have been included under CADWM Programme and the work in 3 projects was implemented during 2016-17. An amount of Rs. 86.48 crore has been spent by March 2017. A total of 26 Pani Panchayats have been constituted during 2016-17, and it is targeted to constitute 202 Pani Panchayats during 2017-18. It was agreed that State will submit release proposal for 2017-18 along with requisite information to CWC at the earliest.

24. Meeting ended with a vote of thanks to the Chair.

**LIST OF PARTICIPANTS IN 1ST MEETING OF
PROJECT IMPLEMENTATION REVIEW COMMITTEE (PIRC) FOR CADWM
HELD ON 29TH APRIL-2017 AT BHUBANESHWAR**

A) Government of India, Ministry of WR,RD&GR:

Sl. No	Name of Officers	Designation	Contact
1.	Dr. B.R.K.Pillai,	Commissioner (CAD), New Delhi	9899272620
2.	Sh. Sanjiv Aggarwal	Chief Engineer, PMO,CWC, New Delhi	9810040191
3.	Sh. J.R. Boro,	Jt. Commissioner (CAD) New Delhi	9968660215
4.	Sh. R.K.Tiwari	Consultant (CAD), New Delhi	9868548340
5.	Sh. A.K Gupta,	Tech Director, NIC, New Delhi	9810111491
6.	Sh. Chirag Bhatia,	Scientist-B, NIC, New Delhi	8130910200
7.	Sh. Vijai Saran,	Dir (M&A), CWC, Chandigarh	9868104740
8.	Sh. Balram Kumar	Dir (M&A), CWC, Ranchi	7781099815
9.	Sh. B.N.Prushty	Dy. Dir (M&A), CWC, Ghandhinagar	9408896378
10.	Sh. Puneet Mittal	Dir(M&A).CWC, Jaipur	9310353920
11.	Sh. Jeeta Ram	Dy. Dir (M&A), CWC, Gwahati	7086390024
12.	Sh. N.W Satish Seemakarti	Director, CWC, BLR, Bangalore	9911427505
13.	Sh. G. Rambabu	Dir (M&A),CWC, Hyderabad	9490485106
14.	Sh. Leo Franklin	Dy. Dir (M&A) CWC, Hyderabad, Telangana	9833623655
15.	Sh. V. B. Fuley	STA, MoWR, New Delhi	9310837335
16.	Sh. Mukesh Kumar Singh	Director, (M&A) CWC, Patna, Bihar	9471193011
17.	Sh. A.K.Pradhan	Director, CWC, Bhubaneswar, Odisha	9583455111
16.	Sh.Y.D. Sharma,	Secretary , IndiaNPIM, CSMRS, New Delhi	9818688744

B) Officers of Govt. of Odisha:

Sl. No	Name of Officers	Designation	Contact
1.	Sh. Pradeep Kumar Jena	Principal Secretary, DOWR	-
2.	Smt. Chitra Arumugam	Special Secretary, DOWR	-
3.	Er. Suresh Kumar Jain,	EIC, WR	-
4.	Er. Samaresh Kumar	EIC, P&D	-

	Mohanty		
5.	Er.P.K. Satapathy	EIC-cum-spl. Secy.	-
6.	Er. Hrudanada Sahu	CE&BM,SB Basin	9938887230
7.	Er. Haramohan Pradhan	CE & BM, UM Basin	9437664887
8.	Er.Pitambar Panda	CCE,Ret Irr. Project	9776592330
9.	Er. Harsabardhan Mohanty	CCE,UKIP	9437141950
10.	Er. Nirmal Chandra Pradhan	CCE, UIIP	9438005489
11.	Er. Sunil Kumar Naik	CCE,LIIP	9438349994
12.	Er.Kulamani Biswal,	CE & BM Baitarani Basin	9439491646
13.	Sh. Damodar Sahu	Director WALMI	9437216010
14.	Sh. Manoj Kumar Das	Addl. Director, CADA	9437084862
15.	Sh. Tarini kumar Sethy	EE,CAD, BBSR	9437237007
16.	Sh. Duryadhan Nayak	DD, CAD	9437384630
17.	Sh. Rajendra Beshra	DD, CAD,Survey	9668529623
18.	Sh. Kulamani Sethy	EE,ISBIG CELL	9118809800

C) Officers of other States:

Sl. No	Name of the State	Name of the Officers	Designation	Contact
1.	Madhya Pradesh	Sh. Harsh Saxena	Superintending Engineer	9993220242
2.	Rajasthan	Sh. Satish K. Arora	Chief Engineer, West (CAD)	7023944131
3.	Andhra Pradesh	Dr. P.S Raghavaiah	Spl. Commissioner (CAD)	8008341329
4.	Karnataka	Sh. Shivaswamy M.	Director (CAD)	9448247026
5.	Manipur	Sh. K. Lokeshore Singh	Addl. Chief Engineer	8794351681
5.	Gujarat	Sh. V.P Gupta	Commissioner (CAD)	9979851320
6.		Sh. V.S Patel	Joint Director, WALMI	9978405557
6.	Punjab	Sh. K.S, Takshi	Chief Engineer	9216527946
7.		Sh. Ram Saran Goel	Superintending Engineer	9417888157
8.	Jharkhand	Sh. Ashok Kumar	Chief Engineer	9431102006
9.		Sh. Ram Nivas Prasad	Superintending Engineer	9431117154
10.	Chhattisgarh	Sh. V.K Srivastav	SE, Bilaspur	9827193311
11.		Sh. V.S. Sahu	EE, Kelo Project	9424155313
12.		Sh. P.R.Fulekar	EE, Kelo Project	9893935898
13.	Kerala	Sh. Majeed K.S	Exe, Engineer	9447863513
14.		Sh. Saju.S	Exe, Engineer	9847132112
15.	Bihar	Sh. Rakesh Kumar	SE (CAD)	9431289133
16.		Sh. Iswar Ch. Thakur,	prof, Walmi	9431483406
17.	Telangana	Sh. Anatha Ramulu	SE	9493855200

**Summary of Decisions and Recommendations of the 1st PIRC Meeting
held in Bhubaneswar during 28th to 29th April, 2017**

A) Decisions of PIRC (for follow-up actions by all States and CWC):

- 1) Focus of non-structural intervention under CADWM shall be on “Taking over of irrigation system by WUAs” as done in case of Odisha.
- 2) Measures for creation of WUAs (wherever not already existing) and WUAs capacity building shall be preceding the structural intervention, or at the most taken up simultaneously with initiation of structural intervention.
- 3) The CAD works shall ensure flow of channelized irrigation water to every individual farm under the targeted Culawa/Chak outlet command through the combination of lined and unlined channels.
- 4) The layout of field channel shall be designed to feed farms on both sides of the channel, and an optimal length of the channel network (including both lined and unlined portions) shall be arrived at in a manner acceptable to the farmers of the targeted Culawa/ outlet command/ Chak.
- 5) The lined portion of channel shall be created ensuring: (a) its start-up from the Chak outlet, (b) its continuity without breaks, and (c) maximum coverage along the main limb. The guidelines has set ceiling costs for lined channel solely for the purpose of computation of Central Assistance; States are free to decide the lining proportion as per actual requirement.
- 6) The complete layout of the field channels for providing channelized irrigation water to every individual farm through the combination of lined and unlined channels shall be endorsed by respective WUA by recording of signature on layout plans(s). The presentable copy of the layout(s) drawn to an appropriate scale shall be laminated and kept in the office of WUAs as permanent record.
- 7) In principle, the control and management of irrigation network below the government controlled outlets is the responsibility of Water Users’ Association. As land is not acquired by government for CADWM interventions and the assets created under CADWM not accounted as government assets, the regular maintenance of field channel created under CADWM program shall not be construed as responsibility of government; and funds shall not be released by default for its routine maintenance.
- 8) CWC Headquarter, in consultation with CWC CAD Cells, will take up the task of standardization of field channels incorporating multiple options for local adaptation. CWC will also explore the measures available for installation of control and measurement devices in the field channels. The outcome of the exercise will be made available in the form of a ‘Manual for Construction of Field Channels’ within four months time.
- 9) The issue of prior lining of feeder canal shall not be a pre condition for taking up lining of the field channels in command area for two reasons: firstly, larger water-

use efficiency is achievable from lining of field channel than from lining of feeder canal; and secondly, since the later-day lining of feeder canal can only raise the outlet level, it may not pose any problem in operating an existing lined field channel. However, exceptions can be made in such cases where the Department is aiming for increase in the extent of command by lining of the canal network and a later-day change in size of the field channels is anticipated.

- 10) The overall improvement in financial strength of WUAs is essential for their long term sustainability. However, this shall not be attempted by consideration of higher grants for WUAs; rather they shall be empowered for taking financial decisions on their own in relation to water tariffs, differential pricing of water, fines for deferred payments, share in profit margins for common services, etc.
- 11) The concept of warabandi, for equitable distribution of the available water through rotation of supplies, is built-in in the optimal design of irrigation canals; and its exercise is not optional but essential. However, a greater level of coordination and communication needs to be established with WUAs for determination and enforcement of a predetermined schedule specifying year, day, time and duration of supply to each Chak; and a cascading communication and coordination is also required between a WUA and the individual farmer for ensuring timely supply of water in proportion to the size of farmer's landholding in the outlet command and the choice of crop.
- 12) The rampant variation in cropping pattern vis-a-vis assumptions made in original estimation of project's irrigation potential is the leading cause for non-equitable distribution of irrigation water in command. However, enactment of irrigation laws in this regard and their strict regulations may not be very fruitful. Instead, the issue at best can be resolved by market level intervention for farm produce influencing farmer's crop choices; or by demand-side management of irrigation water achieved through: (i) deeper penetration of water education; (ii) empowerment of WUAs for levying differential pricing; and (iii) control on irrigation releases to WUAs at government controlled outlets (for successful outcomes, the suggested interventions for the demand-side management shall be implemented in the sequence as stated).
- 13) Any proposal for reclamation of water-logged area shall be tailored keeping in mind the future scenario evolving from higher application-efficiency targeted under CADWM. In areas where the water logging is caused by other sources such as canal leakage, the intervention shall be directed at the root cause. Only in cases where water logging is attributed for reasons of soil quality, the interventions of surface and sub-surface drainage shall be attempted; and even in such cases, the implementation of micro-irrigation will be a more desirable action.
- 14) A greater level of awareness and vision needs to be built-in through capacity building programs directed at WUAs for ensuring timely and regular elections. The shortcut of unified notification, for same day State-level election, though effective for meeting the requirement of election, is fraught with the risks of politicisation of the process.
- 15) The issue of bringing improvement in the provisions of PIM Act is being looked into by a group of experts in IndiaNPIM; and a modified Model PIM Act will be

prepared based on recommendations of the group which will be shared with all States for enactment, or amendment of the prevailing Act.

- 16) Involvement of WUAs in planning of field channel has been desired without making it mandatory that actual work is also to be executed through WUAs. The execution of the works through WUAs have the limitations of: (i) attracting contractors in WUA's elected body if large packages are given; (ii) work progress becoming very slow if small packages are given; (iii) absence of mechanization and quality of works that can come from established large contractors; (iv) absence of competitive pricing. Hence for the CADWM works of 99 projects in a mission mode, targeting over 72 lakh hectare within a short period of 3 years, it is desirable to go for large contract packages with stipulation for prior consent of farmers/ WUAs in planning of the field channel layout.

B) Recommendations of the PIRC (for follow-up action by CADWM Wing, MoWR, RD&GR for competent level approval):

- 1) To amend suitably the Item-II of Annexure-VI (Cost Norms & Procedure for Computation of Ceiling Cost) of the 'Guidelines for Central Assistance for CAD Works in Prioritized AIBP Funded Irrigation Projects' so as to:
 - a. Permit States Governments to engage social facilitators on their own, in case of delays encountered in engagement of social facilitators by the Centre;
 - b. Include components of agricultural livelihoods support services for overall benefit of target group (including women and people deprived of farm lands) mainly through convergence with other extant schemes.
- 2) The present guideline mandates micro-irrigation coverage in at least 10% of the CCA of the project. In exceptional cases, the shortfall in micro-irrigation target from one project may be shifted to (more suitable) another project within the 99 list; and in this manner, some of the lift irrigation schemes can be targeted for 100% micro-irrigation in a cost effective manner benefitting from economies of scale. The guidelines may be amended suitably for above action in exceptional cases.
