

**Government of Andhra Pradesh  
Irrigation & CAD Department**

From  
**Dr. Prasanta Mahapatra, I.A.S.,**  
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To  
1. The Engineer-in-Chief (Irrigation)  
2. The Engineer-in-Chief (Medium)  
3. The Engineer-in-Chief, TGP, Srikalahasti  
4. The Chief Engineer, NSP  
5. The Chief Engineer, SRSP  
6. The Chief Engineer, North Coast, Vizag  
7. The Chief Engineer(P), Mahaboobnagar  
8. The Chief Engineer, Anantapur  
9. The Chief Engineer, Kadapa  
10. The Chief Engineer, Minor  
11. The Chief Engineer, NSRSP Srisailam  
12. The Chief Engineer (P), Kurnool

**Letter No.COM/CAD/DEE-V/3312/2012,**

**Date: 10-04-2012**

Sir,

**Sub :** Preparation of Annual Action Plan for O & M for the year 2012-13 -  
Guidelines issued - Reg.

**Ref :** 1) G.O. Ms.No.21, Dt: 05-03-2010.  
2) T.O.Lr.No.COM/CAD/DEE-V/1170, Dt: 26-10-2010.  
3) G.O. Ms.No.46, Dt: 24-02-2007.  
4) Govt.Memo.No.31274/Drainage.2/2006-4, Dt: 13-04-2007.  
5) Go.Ms.No.170, Dated : 14.10.2008.

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There is a need of completion of canal closure work for the coming Khariff season of 2012. These works have to be identified in consultation with the Farmers Organizations through walk through survey, technical feasibility, previous water management bottle necks and WUA, DC wise efficiency achieved etc.

The O&M works could be routine in nature towards management of the irrigation system and to reduce the bottle necks encountered during the previous season for water management. The Government reviewed the matter and with a view to streamline the O&M works, funds management and also to increase accountability have constituted a "CAD Committee" vide G.O. in reference 1<sup>st</sup> cited and follow up guidelines in continuation to Go.Ms.No.21 are given vide reference 2<sup>nd</sup> cited.

In this connection, it is to inform that Water tax collection upto February is Rs.94.40 crores which is expected to reach around Rs.120.00 crores during 2011-12 So this could be sufficient for operation and Maintenance of the irrigation system in Major, Medium and Minor Irrigation sectors and this is achieved with the cooperation of hierarchy in I&CAD Department. Further, it is informed that the Department is slowly moving towards for collection of entire Water tax to meet the expenditure of operation and maintenance of the Irrigation systems without taking support of Departmental funds. So necessary care should be taken for preparation of Action plan giving more importance under Category 'A'.

The following is the sequence suggested for taking up O&M works.

- 1) Go.Ms.No.46 shall be strictly followed for O&M works categorization.
- 2) Weed removal should not be more than 20% of overall action plan of the project.
- 3) Water tax collection of 2011-12 details are mandatory for Category 'A' works approval.
- 4) The CAD Committee directed all the HODs not to submit the ratification proposals in future.
- 5) If the works are taken up in emergency and submitted for ratification, the Superintending Engineer concerned should furnish the Quality control certificate, photos and another circle Superintending Engineer's verification report.
- 6) The Committee decided that, the HODs have to submit the O&M works proposal in Farmers Organizations wise i.e., PC/DC/WUA.
- 7) HODs are directed to submit the works in Head of Account wise i.e., (NSP/SCP/TSP) duly following the planning Commission Guidelines in respect of SCP and TSP components.
- 8) Proforma information (enclosed) should be submitted while furnishing the works approval.
- 9) The WUA wise walk through would lead to identification of works which shall be consolidated at a DC level meeting to be taken up in the presence of EE/DEE. The technical feasibility of the works proposed and targeted improvements should be reviewed by the concerned C.As before consolidating the DC level action plans and examine these proposals at circle level meeting by Superintending Engineer.

- 10) Thereafter, a project level meeting shall be convened in presence of the Chief Engineer for consolidating the project level action plan duly identifying targeted areas in performance.
- 11) Such project wise action plans would be presented by the ENCs/CEs to the CAD Committee constituted as above under the Chairmanship of ENC Administration vide G.O. 1<sup>st</sup> cited above.
- 12) The guidelines attached should be followed for preparation of O&M Action Plan.
- 13) Strictly follow the CAD Committee recommendation given in guidelines.
- 14) After Action Plan for 2012-13 is prepared for O&M works of each project, in the aforesaid manner, the Chief Engineer of project concerned shall hold meetings with the project officials at his level, in the first instance, and later attend the meeting with the CAD Committee for discussion and approval of the Action Plan as per the schedule.
- 15) The schedule for meeting with CAD Committee Project wise can be finalized by Chairman and would be sent separately.
- 16) The HODs are directed to submit the O&M Action plan proposals in **soft copy** and mail the proposals to **cadcom\_hyd@yahoo.com**

Therefore, the project authorities mentioned in the address entry are requested to attend the review meeting in Office of the Commissioner, CAD with relevant particulars for O&M action plan of 2012-13 for Kharif season on 08-05-2012, @ 11.00 Am.

- Encl: 1. Proformas  
2. References cited  
3. Guidelines

**Yours faithfully,  
Sd/-  
Commissioner, CAD**

**\\ Attested \\**

**Dy.Executive Engineer**

To  
All Engineers-in-Chief  
All Chief Engineers

**PROFORMA**

**Category - A**

(Rs. in Lakhs)

Sl.	HOD	Project Name	Circle Name	Division	Water Tax				Works proposed for 2011-12						
					Collection available		M.R.O proceeding		Eligibility as per G.O.170	NSP		SCP		TSP	
					Year	Amount	No.	Amount		No.	Rs.	No.	Rs.	No.	Rs.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

**Category - B**

(Rs. in Lakhs)

Sl.	HOD	Project Name	Circle Name	Division	Works proposed for 2011-12						
					NSP		SCP		TSP		
					No.	Rs.	No.	Rs.	No.	Rs.	
1	2	3	4	5	6	7	8	9	10	11	

**Project Plan and Non-Plan**

(Rs. in Lakhs)

Sl.	HOD	Project Name	Circle Name	Division	Head of Account	Budget Provision	Budget available with ENC/CE	Works proposed for 2012-13	
								No.	Amount
1	2	3	4	5	6	7	8	9	10

**Note:** Above proformas duly counter signed by ENCs/CEs.

**Sd/-  
Commissioner, CAD**

\\ Attested \\

**Dy.Executive Engineer**

## GUIDELINES FOR PREPARATION OF O&M ACTION PLAN FOR 2012-13

All the officers engaged in water management may note that O&M Action Plan shall be prepared for the year 2012-13 well in advance so that all necessary works of maintenance are executed and completed well in advance before the release of water into canals. The O&M Action Plan so proposed shall aim at “equitably distribution of water so that every ayacutdar receives assured supplies; the tail enders get their share of water; gap ayacut is minimized; and the target for the year 2012-13 is not less than 10% over the performance of last year in water use efficiency and productivity.”

To achieve this there is need for:

- I. Canal system including head works shall be well maintained.
- II. A good Management Force to operate and maintain the system.
- III. A good Operation Plan.

### **I. SYSTEM MAINTENANCE**

#### **(a) Main and Majors Canal Levels:**

- a. Main and Major canals prism shall be made free from silt and obstructions. Any damaged lining shall be repaired.
- b. All banking reaches, where bunds are at lower level than required TBL, are to be raised to the required level and any breaches / boongas shall be repaired on a war footing (The banking reaches shall be inspected by Superintending Engineer/Chief Engineer).
- c. All off-take structures shall be repaired and shutters oiled and greased and made operational. All cross regulators shall be oiled and greased and made operational. All aqueducts, and CD works shall be repaired and made leak proof. The approaches of valley crossing shall be cleared of vegetations and obstructions.
- d. Inspection paths shall be motor able and free from vegetation / jungle. No gravelling and earthworks of inspection paths should be taken up unless specially permitted by CAD Committee.

**(b) Minor & Distributory Level:**

- a. Off-takes of Minors, taking off from Distributaries, and off-takes of Distributaries taking off from Major and Main canals shall be repaired and shutters of these off-takes shall be duly oiled and greased and made operational.
- b. Canal prisms in Minors, Distributaries, Major and Main canals have to be cleared of silt and obstructions.
- c. All banking reaches, where bunds are at lower level than required TBL, are to be raised to the required level and any breaches / boongas shall be repaired on a war footing.

**(c) Dam Safety Works:**

- a. Dam safety works that are to be taken up both under Category 'A' and Category 'B' shall be identified for each project after inspection by DSO (Dam safety Organisation) and their value assessed. The detailed estimates prepared shall be discussed with CAD Committee and their approval be obtained before taking up the works under Category 'A' in the first instance. In respect of works under Category 'B' detailed estimates may be prepared and submit to Committee and discuss the time frame for execution chargeable to plan Budgeted provisions. All mechanical work estimates shall be prepared by the Mechanical wing of the I&CAD Department. The procedure of tendering the works have to be initiated well in advance to avoid last minute rush. The works may be prioritized so that the essentially required ones are identified and executed before the onset of the ensuing monsoon. A completion programme for these identified works may be chalked out and duly discussed in the CAD Committee for approval.

**(d) Drainage Works and Sea-Mouth Decongestion (Delta System) :**

- a. A separate Action Plan shall be prepared for O&M woks of Drainage systems and approval obtained for it from the CAD Committee.
- b. In respect of Sea Month Decongestion works, the data of APSARAC may be put to use. The works already taken up are to be reviewed and discussed in the CAD Committee along with the Action Plan for taking up new works for decongestion at Sea-Mouths.
- c. The Chief Engineer concerned may prepare a consolidated Action Plan for Drainage and Sea Mouth Decongestion and discuss it with the CAD Committee before execution.

**(e) Off-Take, Gauge Points and Mechanical Works:**

- a. At every off-take points on Main Canal, Branch Canal, Distributaries and Minors Canals Measuring Devices shall be constructed to facilitate operation of the off-take gates to allow the required discharge through them. The designs for the Measuring Devices shall be got approved by the CE/CDO.
- b. Gauge points may be painted at prominent locations on all canals.
- c. The findings and recommendations of the studies made on WUE at the office of Commissioner CAD are to be made use for preparing the O&M Action Plan. The DC wise performance of utilization of water together with productivity is to be made use of for preparing the Action Plan. The DCs that are using more water shall be placed under strict observation and action is to be initiated to curb over irrigation in these DCs. The off-take shutters shall be made operational in the jurisdiction of these DC right from the FC to the Distributory level to facilitate closing them as soon as irrigation is completed under these off-takes (FCs to Distributory off-takes).
- d. In respect of water logged areas, irrigation supplies may be controlled and use of ground water for irrigation encouraged.
- e. For preparation of all mechanical works the inspection notes and recommendations of the Dam Safety Organization shall be followed. The Mechanical Wing of I&CAD Department shall be engaged in preparation of the detailed estimates.

**(f) PROCEDURE FOR TAKING UP WORKS**

- a. All projects will prepare an O&M Action Plan for 2012-13. The O&M Action Plan for the Minor and Distributory Canal levels shall be prepared on the basis of the Action Plan Work Books for Farmers' Organizations (WUA / DC / PC) prepared and circulated by the Office of the Commissioner CAD, I&CAD, Department. The Work Books include formats for monitoring the performance of the project (WUA / DC / PC wise) in the previous season and for planning works (WUA / DC / PC wise) for the coming season. The Action Plan for the Major and Main Canals and the Dam shall be prepared on the basis of technical specifications issued by I&CAD Department for the purpose.
- b. All the works included in the O&M Action Plan for 2012-13 for each individual project (work wise) shall be discussed in the CAD Committee. After approval is accorded for the O&M Action Plan by the CAD Committee the works are to be executed.

- c. The procedure for preparation oewef estimates and execution of works shall be in accordance with procedures laid down by I&CAD Department as per the Government Orders and Department Circulars in force now.

**(g) Combined Action Plan to be Prepared:**

O&M works shall be executed through the following funding categories:

- i. Water Tax re-plough amount available.
  - ii. Plan and Non Plan budgets provision for 2012-13.
- a. A combined and consolidated O&M Action Plan for 2012-13 for both the funding categories shall be prepared for each project. The combined O&M Action Plan so prepared shall be presented to the CAD Committee for discussion and approval. After approval by the CAD Committee is obtained the Action Plan will be executed. The works shall be executed and completed in all respects by the CEs before onset of Monsoon, well in advance of opening of the canals. No work shall be taken up after canals are opened.

**(i) Water Tax Re-plough Money:**

- a. The O&M works under Category 'A' shall be executed with water tax re-plough funds, limiting the value of works up to the amount of water tax re-plough due. No liabilities shall be created in any case over this re-plough amount.
- b. The planning of O&M works under Category 'A' to be executed with water tax re-plough funds will be done on the basis of the Farmers' Organization Action Plan Work Books prepared and circulated by the Office of Commissioner CAD, I&CAD Department.

**(ii) Budget Provision under Plan and Non Plan for 2012-13:**

- a. All works proposed under the budget provisions of "Plan" and "Non Plan" shall be included in the O&M Action Plan of a project and submitted to the CAD Committee for approval. No works shall be taken up under this funding category without being included in the O&M Action Plan and without the approval of the CAD Committee. Execution of these works shall be as per the procedure laid down by I&CAD Department.

**(h) Work Tracking System:**

- a. Despite imparting hands on training to staff of all projects at Division level on the "Work Tracking System", the details of works taken up are not being entered on-line by many Divisions. Hereafter, care shall be taken that all



works (Category 'A' and all other types of works) taken up under the various Heads of Account are entered on-line under the "Work Tracking System" and status of execution regularly updated. No payments shall be made for works, which are not entered on-line under the "Works Tracking System".

**(i) Quality Check:**

- a. Quality Checks required as per the procedure laid down in I&CAD Department for execution of O&M works shall be followed.
- b. Photographs of works may be taken before execution in support of provisions made in estimates prepared, and also photographs after completion may be taken during execution after completion of works, in support of the bills prepared (records).

**(j) CAD Committee Recommendations**

- a. The Committee seriously discussed about the vast gap between the Tax collected by the Revenue Authorities and the Demand raised as per joint Azmoish by the Irrigation/Agricultural authorities, it is directed to HODs should review the joint Azmoish, ayacut details and I.P under their respective Jurisdiction before submitting the proposals to CAD Committee.
- b. As per the guidelines issued vide Go.Ms.No.21, the committee directed to HODs, to periodically monitor the activities pertaining to quality control, ayacut development, transplanted area etc, of the Irrigation projects.
- c. The committee observed that the project authorities are utilizing the funds under plan and non-plan heads initially without ensuring the plough back amounts. Hence, it is directed to utilize the plough back funds for O&M works and if there is any short fall, plan funds may be utilized. Further the Azmoish particulars are not furnished while submitting the O&M proposals. Therefore the Engineers-in-Chief/Chief Engineers of the projects may furnish the Azmoish details of Kharif and Rabi of 2011-12 to the committee immediately.
- d. The Committee discussed regarding approvals of O&M works in SCP, TSP components and suggested to follow the guidelines of the Planning Commission, New Delhi, as the SCSP funds may be accounted only about 5% towards non-divisible nature of funds for certain sector like major irrigation, power, roads etc. Accordingly, Action Plan approvals towards SCSP component is being made at 5% of the total approvals for respective

Projects. Further, the Action Plan approvals towards TSP is based on percentage of beneficiaries submitted by the field.

- e. The project authorities shall furnish the list of works along with chargeable head of account under Category 'A' & 'B' works.
- f. The Committee recommended for 50% of water tax collection for annual maintenance of drains in deltas and balance for general maintenance.
- g. Silt removal in canal system is not permitted as this item covered in modernization packages.
- h. The Committee recommended to keep the drains weed free throughout the year, the Superintending Engineers concerned should prepare the annual maintenance proposals once in a year.
- i. It is mandatory to furnish the another circle S.E's report on all closure works for approval.

#### **(k) A GOOD TEAM FOR WATER MANAGEMENT**

- a. In all projects, it is noticed that inadequate attention to canal operation is a major reason for under performance of the project. Therefore the Chief Engineers shall analyze the project system capacity and its behavior and perturbations and take all necessary steps for better water management.
- b. The entire main canal operation shall be entrusted to one / two Divisions, exclusively. The incharge Executive Engineers shall report directly to the Chief Engineer of the project concerned.
- c. Head reaches of Major / Distributory canals shall have, as far as possible, maximum strength of staff deployed for managing water supply. The Chief Engineer may consider to depute considerable staff from tail end areas to attend to day-to-day water management in the head reaches, so that over drawals are curbed and adequate water is released to the tail end areas.
- d. Improved water management shall aim at increasing production with minimum water utilization.
- e. The FOs and Engineering Coordinators in the FTC shall be involved actively in water management. In particular the WUA shall actively be involved in managing field to filed irrigation under FCs to ensure timely closure of FCs and avoid wastage of water.
- f. SMS through cell phones from the gauge locations (already identified) shall be sent daily without fail. The Chief Engineer / Superintending Engineer shall monitor this on daily basis. New gauge points, where necessary, shall be

identified for sending SMS, in canals and also at prominent locations along drains in command area.

- g. Teleconference by Chief Engineer of the project with field Engineers may be conducted at reasonable interval say once in a week (say 12 to 15 times in a crop period), for improving performances the modalities may be discussed with the CAD Committee.
- h. Service - oriented irrigation management, and efficient use of water is the need of the hour. To achieve this, training to field engineers and farmers is necessary. Therefore a training programme with the necessary training and field visits needs to be chalked out and discussed in the CAD Committee for approval and implementation.

#### **(I) A GOOD OPERATION PLAN**

- a. A good Operational Plan shall be prepared before commencement of the cropping season. ON/OFF schedule on Main / Major / Distributory canals shall be introduced wherever feasible after duly discussing it with the CAD Committee.
- b. Experts from within project, APERL, CDO unit also may be involved in preparing the Operation Plan.
- c. Considerable Gauge Point data shall be obtained and analyzed daily/ weekly and modified on/off schedule, if necessary.
- d. WUA participation in water management at FC level is to be encouraged.

Sd/-  
**Commissioner, CAD**

**\\ Attested \\**

**Dy.Executive Engineer**