

GOVERNMENT OF TELANGANA
ABSTRACT

Irrigation & CAD Department – Minor Irrigation – Restoration of Minor Irrigation Tanks –
“Mission Kakatiya” – General Guidelines – Orders – Issued.

IRRIGATION & CAD (REFORMS) DEPARTMENT

G.O.MS.No. 44

Dated: 13-03-2015

Read the following:

From the Chief Engineer, Minor Irrigation, TS, Hyderabad, Lr.No. DCE-II/ OT1/
TO2/Mission Kakatiya /2015, Dt: 05-03-2015.

In the reference read above, the Chief Engineer, Minor Irrigation, TS, Hyderabad has informed that Tanks were the main source of irrigation in Telangana for centuries. Over a period of time, due to lack of proper maintenance and siltation, most of these tanks have either shrunk or become defunct. Reduced availability of surface water has resulted in over stress on the available groundwater resources. To bring back the past glory to tank irrigation, the Government of Telangana State have launched the “Mission Kakatiya” (Mana ooru – Mana Cheruvu) with community participation. The State is committed to ensure restoration of all the irrigation tanks in the next five years in a phased manner.

2. The Chief Engineer, Minor Irrigation, TS, Hyderabad has requested the Government to accord permission to use the rate structure, Tender procedure to be followed and guidelines for the desiltation of Irrigation Sources.

3. Government after careful examination of the proposal of Chief Engineer, Minor Irrigation, TS, Hyderabad hereby accord permission for following guidelines formulated for the benefit of all those who are involved in execution of the works under Mission Kakatiya.

I. GUIDELINES:

i. Prioritization of tanks:

As the programme is designed to be completed in next five years, the following criterion shall be followed for identifying the tanks for each year on priority.

- a. Tanks which have not been covered under the programmes like state plan, RRR, CBTMP shall be given priority.
- b. Preference shall be given to tanks having dependable flows and relatively larger ayacut.
- c. Preference shall be given to the tanks where farmers agree to transport the silt to the farm lands at their cost.
- d. The chain tanks in the mandal shall be identified in the 1st phase. Cost estimates for each individual tank in the chain including repairs of its feeder channel shall be prepared. The Continuation of chain into the next mandal shall be identified at Division / Sub – Division level.
- e. The Rural Development Department has taken up removal of silt and certain restoration works in 18,369 tanks during the last five years under MGNREGS. Estimation for these tanks under Mission Kakatiya shall be prepared, considering the works already taken up so as to avoid duplication of work. These tanks shall preferably be taken up in subsequent years.
- f. The process of prioritization shall be done in consultation with the District Minister/ local MLA/MLC/other Public representatives.
- g. The details of the tanks so identified to be taken up for restoration shall be documented with their unique identification number, geographical locations, hydraulic particulars along with the works proposed and cost thereof.

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- h. Regular inspection and quality control checks shall be carried out as per normal procedure.
- i. Executive Engineer shall take photos before, during execution, and after completion of work and upload on the website.

ii. Works to be taken up:

- a. De-siltation.
- b. Restoration of Feeder Channel to the tank.
- c. Re-sectioning of Irrigation Channels & Repairs to CM & CD works.
- d. Repairs to Bund, Weir & Sluices.
- e. Raising of FTL, wherever possible

iii. Estimates:

The estimates shall be prepared based on the standard data and current SSR and shall be realistic.

Provisions to be made in the estimates:

1. The estimates shall be submitted in the proforma of comprehensive estimate to the Chief Engineer, Minor Irrigation.
2. While according the Technical Sanction to the estimates, provisions for excavation of Silt and dumping the soil shall be provided separately so as to facilitate the farmers to transport silt to their fields.
3. Jungle Clearance for Bund and bed may be provided as per necessity.
4. The funds available under Tribal Area Sub Plan (TSP) shall be utilized for the programme, ensuring that at least 40 % STs living in Tribal area are benefitted.

iv. Sanction of estimates and finalization of tenders:

The works shall be sanctioned only after inspection of concerned officer as per the norms given below. (Amount in Rs. Lakhs)

Task	Powers delegated to	Value
Inspection before technical sanction	Executive Engineer	Up to 100
	Superintending Engineer	100-500
	Chief Engineer	Above 500
Technical Sanction	Executive Engineer	Upto 50
	Superintending Engineer	50 to 100
	Chief Engineer	Above 100
Tender Approval	Executive Engineer	Upto 50
	Superintending Engineer	Upto 100
	Chief Engineer	100 to 1000
	Commissioner of Tenders	Above 1000

v. Tender Notice / Documents:

- The Tender Notice or Notice Inviting Tender shall be the customized document that had already been approved.
- The customized tender documents shall only be used with applicable BOQ items.
- All the Works will be executed on tender basis only.
- Tenders to be called for each tank separately.

vi. The schedule of tender process:

	Process	Earlier	Present
1	Calling of Tenders	14 Days	7 Calendar Days
2	Acceptance of Tenders	90 Days	7 Days
3	Concluding Agreements	14Days	5 Days
4	Additional security Deposit	< 25 %	< 10 %

- The existing e-procurement platform is modified for use of Mission Kakatiya.
- All the new SE's & EE's shall obtain the digital keys from the APTS for utilization of Mission Kakatiya Platform.
- In order to encourage local entrepreneurs, financial limits for class V Contractors had been enhanced from 10 to 50 lakhs.

vii. Bid Capacity:

The available bid capacity will be calculated as $(2 \times A \times N - B)$ where A is maximum value of civil engineering works executed in his name in any one financial year during the last 10 financial years, B is updated value of all existing commitments and N is number of years prescribed for completion of work for works costing Rs. > 50.00Lakhs.

Maximum of 5 No. of works or works costing not more than 2.00 crores shall be awarded to a Contractor in the category of works costing upto Rs. 50.00 lakhs where Single Cover System (i.e., Price Bid quotation only) followed. For the works costing more than Rs. 50.00 lakhs where normal evaluation procedure for qualification criteria i.e., $2AN-B > ECV$ there is no limitation in this category.

viii. Tender Premium:

1. Tenders with an excess of 5% and above of the estimated contract value (ECV) shall summarily be rejected.
2. For tenders up to 10% less than the ECV of the work, no additional security deposit is required.
3. For tenders less by more than 10% of the ECV of work, the difference between the tendered amount and 90% of the ECV shall be taken as additional security deposit from the successful bidder in the form of Demand Draft at the time of agreement.
4. If the percentage quoted by a bidder is found to be either abnormally high or within the permissible sealing limits prescribed, but under collusion or due to unethical practices adopted at the time of tendering practices, such tenders shall be rejected.
5. If the bidder quotes higher percentage than that quoted in the previous call for the same work, such shall be rejected.
6. No negotiations shall be allowed at any level.
7. Tenders from joint ventures are not acceptable unless otherwise stated specifically.
8. The action shall be initiated against the defaulting bidders as per the G.O. Ms. No.174, Dt. 1.9.2008 scrupulously.

ix. Seignorage Charges:

The estimate shall also include seignorage charges for the item of work of strengthening of bund.

x. Defect Liability Period:

The defect liability period is 24 months from the date of completion of the work.

xi. Retention Money:

The department shall retain from each payment due to the contractor @ 7.5% of the bill amount until completion of the whole of the works.

II. Procedure for De-siltation:

- The total quantity of silt to be excavated from the tank is to be assessed in the first instance.
- Preliminary investigation including collection of statistics regarding tank bed level and other hydraulic particulars shall be done.
- To arrive at the quantum of silt, net levels at every 15 meters interval shall be taken in the tank bed area.
- The depth of silt shall be assessed judiciously, ensuring that there will be no depletion of tank after de-siltation, particularly in sandy / highly permeable bed soil areas.
- Trail pits up to silt depth of the tank bed upto original ground strata may be taken at every (50 or 100) meters interval, depending upon the size of the Tank bed.
- The silt shall be got tested for acidic impurities and its suitability for agriculture field application.
- If the tank is full of water, tentative quantity shall not be proposed. The tank shall be taken up later after depletion of water duly assessing the actual quantities.
- Pre levels must be verified by Quality Control staff before execution as per Normal Departmental procedure.
- The excavation of de-siltation bed may be in uniform gradient between FTL contour and sluice sill level contour.
- The basic rate of excavation of silt from the tank bed is Rs. 40.10 / Cum without any lead.
- Out of the total quantity of silt to be excavated, based on the site conditions, the quantity of silt which is not useful to the farmers shall be assessed and deposited within a distance of not more than 1 Km. The rate for excavation and dumping within 1 Km is to be adopted as Rs. 71.50/ Cum (40.10 + 31.40 for 1 Km lead). The above quantity is to be included in the agreement and executed with the above rate.
- Out of the balance, if the soils are suitable to be used for strengthening of the bund the same may be proposed with a rate structure as per IRR DAW 5-5, i.e., Rs. 141.00 / Cum including excavation. The bed of the tank is to be used as a quarry for bund improvement. Applicable seignorage charges are to be added.
- The balance silt is proposed with excavation rate only i.e. Rs. 40.10 / Cum, assuming, farmers transport the silt to their fields at their own cost.
- The above rates shall be revised from time to time as per the prevailing SSR.
- Provision of transporting the silt to a dumping yard not more than 1 Km is to be provided in the estimate in case, the farmers do not come forward for transportation of silt to their fields while execution of work. This lead should not be included in the agreement. Depending on the farmers willingness to transport silt, the situation shall be assessed for taking further action.
- If more lead is required, decision shall be taken by the competent authority.
- Suitable lands may be identified for dumping of spoil with the involvement of local villagers.
- The particulars of the Shikam submergence map to be developed by Revenue & Irrigation Authorities and FTL contour maps are to be prepared duly conducting net leveling and shall be made as permanent record.
- The cadastral maps along with Geo – referencing shall be prepared for the ayacut coming under each tank.

III. Repairs to Bund, Weir & Sluices and raising of FTL:

i. Formation of Embankment:

- All the tanks shall be restored to its original FTL by raising the weir where they are disturbed or lowered.
- The aspect of raising FTL wherever feasible economically shall be examined in detail and proposed.
- Jungle Clearance for Bund and bed shall be provided as per necessity.

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- The following procedure shall be adopted while considering raising the FTL and foreshore patta lands, to avoid submergence and LA issues.
 - a. On the acceptance of foreshore patta farmers, FTL of the Tank shall be raised and the bund shall be raised with de-silted useful soils from tank bed.
 - b. The slope of raised bund at FTL contour shall be taken care against rain gullies by providing revetment.
- Get the top soil, vegetation and sand patches removed to complete depth
- Scarify the ground and wet properly
- Obtain Proctor's Density, Optimum Moisture Content from the lab for the useful soils and borrow soils.
- Provide Cut of Trenches according to height of bank
- Raise embankment with uniform horizontal layer of 25cm thickness
- Break clods, remove roots, big boulders, other materials larger than 80mm from the soils used in the embankment
- Supplement deficit moisture whenever required
- Provide extra offset on both sides of bank
- Compaction with 8 to 10 tonnes power roller
- Conduct field compaction tests and determine compaction co-efficiency
- Check embankment profiles periodically
- Ensure 8 minimum number of passes
- Provide 10% allowance in setting profile of the embankment

ii. **Weirs:**

- The weir length shall be checked for MFD
- Damaged joints shall be pointed after removing loose mortar, raking and cleaning with water.
- It shall be cured thoroughly.

IV. Restoration of Feeder Channel to the tank:

- Feeder channels are to be checked for the carrying capacities and section brought to the designed section for realizing inflows into the tank.
- Silt removal in the feeder channel and repairs to CM&CD works shall be taken up for effective operation of the feeder channel.
- The channel bank shall be brought to TBL with proper compaction.
- The regulator of feeder channel, pickup anicut are to be ensured for diverting the required supplies into the tank through the feeder channel.

V. Re-sectioning of Irrigation Channels & Repairs to CM & CD works:

- Channels should be restored to the designed earthen sections.
- Channels shall be lined selectively after approval of the design by the competent authority.
- Repairs to the damaged irrigation sluices shall be taken top priority.
- If necessary, replacement of existing plugs with screw gear operator steel shutters shall be done.

VI. Community Participation:

- All the tank users who are directly or indirectly dependent on it such as farmers, fishermen, livestock grazers and washermen etc., shall be the beneficiaries.
- The importance of traditional practice of tank silt application, maintaining assets of the restored tanks shall be propagated by organizing Kalajathras and other media in all the tank villages.
- In many villages, Gram Sabhas have passed resolutions expressing their interest for active participation in tank restoration and application of tank bed silt in their fields.
- The project shall thus adopt a participatory implementation strategy.
- Financial contributions by interested persons / groups for tank restoration.

VII. Recreation Water Bodies:

One tank at every Assembly Constituency Head Quarters may be taken up and developed as Recreation Park, Mini Tank bund.

4. The Chief Engineer, Minor Irrigation, TS, Hyderabad shall take necessary action in the matter.

(BY ORDER AND IN THE NAME OF THE GOVERNOR OF TELANGANA)

Dr. SHAIENDRA KUMAR JOSHI
PRINCIPAL SECRETARY TO GOVERNMENT

TO

The Chief Engineer, Minor Irrigation, TS, Hyderabad
The Engineer-in-Chief (Irrigation Wing), I & CAD, Hyderabad.
All the Engineers-in-Chief & Chief Engineers of I&CAD Dept.
The Commissioner, Commissionerate of Tenders, Hyderabad

Copy to:

The P.S. to Hon'ble Chief Minister
The Prl.Secy. R&B Department
The Prl. Secy. PR&RD Department.
The Prl. Secy. MA&UD Department
The Engineer-in-Chief (R&B), Admn, Hyderabad.
The Engineer-in-Chief, Admn ,PR&RD Dept., Hyderabad
The Engineer-in-Chief, PH Dept, Hyderabad
The P.S. to Hon'ble Minister, Irrigation
The P.S. to Hon'ble Minister, R&B
The P.S. to Hon'ble Minister, PR
The P.S. to Hon'ble Minister, MA&UD
The P.S. to Prl.Secy. I&CAD Department.
SF/SC

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SECTION OFFICER