



ABSTRACT

Agriculture – Agricultural Engineering - Pradhan Mantri Krishi Sinchayee Yojana (PMKSY) – Har Khet Ko Pani (HKKP) – Ground Water Irrigation – Administrative approval accorded for an amount of Rs.10.19 crore – Financial Sanction for an amount of Rs.611.90 lakh accorded – Modalities for implementing the schemes during 2020-2021 – Orders – Issued.

Agriculture (AE.I) Department

G.O.(MS).No. 166

Dated: 03.08.2020

திருவள்ளூர் ஆண்டு 2051
சார்வரி, ஆடி 19-ஆம் நாள்

Read:

1. Government of India letter No.T23011/2/2019-GW Scheme – Ministry of Water Resources, Ministry of Jal Shakti, Department of Water Resources, River Development &Ganga Rejuvenation. Ground Water Section, New Delhi dated 14.02.2020.
2. Government of India letter No.F.No.T-23011/2/2019-GW Scheme, Ministry of Jal Shakti, Department of Water Resources, River Development &Ganga Rejuvenation, Ground Water section, New Delhi dated 20.05.2020.
3. Chief Engineer (Agricultural Engineer) letter No.CADP2/1094/2019, dated 22.05.2020.
4. Chief Engineer(Agricultural Engineering) letter No.CADP2/1094/2019, dated 18.06.2020.
5. G.O.(Ms).No.137, Agriculture (AE1) Department, dated 10.07.2020.

Order:

In the letter 1st read above, the Government of India have accorded administrative approval for an amount of Rs.10.19 crore (Central Share as Rs.6.12 crore and State Share as Rs.4.08 crore) for construction of 166 wells under Pradhan Mantri Krishi Sinchayee Yojana – Har Khet Ko Pani – Ground Water Irrigation.

(P.T.O)

2) In the letter 2nd read above, the Government of India have released an amount of Rs.367.14 lakh as the first instalment for the year 2020-2021 towards the grant under Pradhan Mantri Krishi Sinchayee Yojana – Har Khet Ko Pani – Ground Water Irrigation. The corresponding matching share of State Government for the central release in Rs.244.76 lakh which amounts to the sum of Rs.611.90 lakh as first installment for the year 2020-2021.

3) Accordingly, the Chief Engineer (Agricultural Engineering) has requested to accord administrative sanction for Rs.1019.84 lakh and financial sanction for an amount of Rs.611.90 lakh (Central Share as Rs.367.14 lakh and State Share as Rs.244.76 lakh) for implementing the scheme during 2020-2021.

The following project components are proposed to be implemented in 14 districts.

- Geo physical and Geological survey.
- Construction of Ground water abstraction structures – Bore well/Open well/Tube well.
- Pumping System – Solar/Electric pumping system
- Electric power supply up to the well from nearby substation in case of electrical pumping system without supply.
- Water distribution Pipe.

4) In G.O. 5th read above, orders have been issued for providing administrative sanction for Rs.1019.84 lakh and financial sanction for an amount of **Rs.611.90 lakh** (Central Share - Rs 367.14 lakh and State Share - Rs 244.76 lakh) for implementing the scheme of "Ground Water Irrigation" under Pradhan Mantri Krishi Sinchayee Yojana – Har Khet Ko Pani during the year 2020-2021.

5) Now the Chief Engineer (Agricultural Engineering) has stated that the Geo physical survey have been conducted in the proposed area and Geo Co-ordinates are also taken. The Modalities for implementing the scheme at district level have been prepared to implement the works uniformly and systematically throughout the state without any deviations.

6) Hence, the Chief Engineer (Agricultural Engineering) has requested to approve the Modalities so as to communicate to the concerned district officers for strict adherence and for implementing the project for the benefit of the small and marginal farming community.

7) The Government after careful consideration accept the proposal of Chief Engineer (Agricultural Engineering), approve the Modalities for the scheme on "Ground Water Irrigation" under Pradhan Mantri Krishi Sinchayee Yojana – Har Khet Ko Pani for the year 2020-2021 as indicated in the Annexure to this order.

8) The Chief Engineer (Agricultural Engineering) is requested to communicate the same to the concerned district officers for strict adherence and for implementing the project for the benefit of the small and marginal farming community.

(P.T.O)

9) This order issues with concurrence of Public Works Department vide its U.O. No.9884/R2/2020, dated 31.07.2020.

/ By Order of the Governor /

Gagandeep Singh Bedi
Agricultural Production Commissioner
and Principal Secretary To Government

To

Chief Engineer (Agricultural Engineering), Chennai-35.

The Director of Agriculture, Chennai-5,

The Executive Director, Tamil Nadu Watershed Development Agency, Chennai-32.

The Managing Director, Tamil Nadu Generation and Distribution Corporation Limited, Chennai-32.

The Managing Director, Tamil Nadu Horticulture Development Agency, Chennai-5.

The Director (Ground Water), Government of India, Ministry of Jal Shakti, Department of Water Resources, River Development and Ganga Rejuvenation, (Ground Water Section) Shram Shakti Bhawan, Rafi Marg, New Delhi-110 001.

The Regional Director, Central Ground Water Board, Rajaji Bhavan, Desant Nagar, Chennai-90.

The Accountant General (G&SSA)&(E&RSA), Chennai-18.

The Accountant General, Chennai-18/By name

The Pay and Accountants Officer, Chennai-5

The Pay and Accountants Officer, Chennai-35.

All Treasury Officers Concerned.

Copy to

The Senior Personal Assistant to Minister of Agriculture, Chennai-9,

The Senior Private Secretary to Agricultural Production Commissioner and Principal Secretary to Government, Chennai-9

Rural Development and Panchayat Raj/Public Works /Energy Department, Chennai-9.


Assistant Programmer, Agriculture Department, Chennai-9,

Agriculture OP3/DPAP Department, Chennai-9

Stock file/Spare file

/Forwarded by Order/


31/8/2020
Section Officer


31/8/2020

Annexure

G.O.(Ms).No.166, Agriculture (AE1) Department, Dated 03.08.2020

Modalities for the Scheme on “Ground Water Irrigation” under Pradhan Mantri Krishi Sinchayee Yojana - Har Khet Ko Pani for the year 2020-21

- Ground Water Irrigation scheme is to be planned in areas classified as safe and not planned in areas classified as over-exploited, critical and semi critical.
- The safe firkas issued by the Central Ground Water Board, Chennai as Dynamic Ground Water Resources Estimation, 2017 (As on March 2017) shall be taken as reference.
- Under safe firkas ensure the following eligibility criteria,
 - Stage of Ground water Development (SOD) should be less than 60 % before implementation of the project
 - Average annual rainfall of 750 mm or more to have availability of enough water for recharge.
 - Shallow groundwater levels within range of 15 m below ground level or less during pre-Monsoon period.
 - Stage of Ground Water Development (SOD) should not exceed 70% at any time after implementation of the project.
- This scheme is to be implemented on community basis for small and marginal farmers preferably SC/ST and women farmers. The community may be of group of farmers-Co operatives/ WUAs/FIGs/SHGs of farmers.
- The identified farmers group of minimum 8 farmers shall be registered under Tamil Nadu Societies Registration Act 1975 and the farmers group already registered under Tamil Nadu Societies Registration Act 1975 may also be considered.
- The agreement form in Annexure II enclosed along with the operational guidelines of PMKSY-HKGP-GWI shall be obtained from the farmers group, who provides the land to the Government for common use at free of cost by relinquishing the land.
- The estimate for the package of works per group shall include geo physical survey, drilling of tube well / bore well / open well based on the geo physical survey report, pump cost, cost of conveyance pipes and electric supply for transmission line for each well.
- The estimate for each package of the above works is to be prepared based on the PWD schedule of rates or TWAD schedule of rates by the Assistant Engineer/ Junior Engineer (AE), counter signed by the Assistant Executive Engineer(AE) and sanctioned by the Executive Engineer (AE).

(i) **Hydro geological and Geo physical Investigation:**

- The Geo physical survey shall be conducted by the Assistant Geologists of Agricultural Engineering Department or through private agency for proper site selection as per the requirement of number of irrigation sources.
- Ground water development shall be finalised through tube well / bore well / open well depending upon the strata.
- *Maximum subsidy assistance is Rs.10,000/- per well.*

(ii) **Bore well / Tube well / Open Well:**

- Based on the hydro geological and geo physical investigation, execution of bore well / tube well / open well shall be carried out.
- Ground water structure shall be created in the common lands. Necessary permission shall be obtained from the concerned officials for the construction of wells in the Government poramboke land. If common land is not available, the farmers group has to arrange the lands and the group has to give consent to relinquish the patta land to the Government in Annexure II of operation guidelines.
- The created water source i.e., bore well/ tube well/open well will be interlinked and put into use.
- The distance between the two wells (either existing wells or newly created) should be minimum 100 m to prevent any possibility of well interference.
- The depth of Bore wells shall be limited to the recommended depths both in Hard rock as well as sedimentary area.
- Groundwater development is proposed to be carried out through bore wells in hard rock with depth upto 100 m with 155 mm diameter and in soft rock to a depth of 90 m with 155 mm diameter and also through open well upto a depth of 20 m with a diameter of 6 m.
- The quality of pipes should be as per the specified IS standards for the pipes used for execution and shall be ensured while erecting in the tube wells.
- *Maximum subsidy assistance is Rs.3,00,000/- per Tube well and Rs.1,10,000/- per Bore well.*
- However, based on the soil profile and the hydro geological strata of the site, if more depth is required to be executed for locating underground water streams, the cost for drilling the additional depth is to be borne by the beneficiaries/farmers group.
- The presence of Assistant Engineer (AE) / Junior Engineer (AE) at the time of execution is mandatory to ensure the depth of the tube well / bore well.

- In case of open well excavation, necessary safety measures should be strictly followed especially in use of explosives for rock blasting etc.,
- The rules for the regulation of sinking of wells and safety measures prescribed by Rural Development and Panchatyat Raj Department in Tamil Nadu Panchayats Rules 2015 as per the Tamil Nadu Government Gazette No.37, Part III Section 1 (a) should be strictly adhered.

(iii) Pumping System:

(a) Solar Powered pumping System:

- PV solar pumps with Low Tension (LT) panels will be provided for the wells upto a capacity of 5 HP as per the benchmark cost of Ministry of New and Renewable Energy
- The farmers groups is free to choose any brand / make and type (AC/DC pump and Hp) of Solar Powered Pumping System from the empanelled and approved list of Solar Powered Pumping System manufacturing firms under Pradhan Mantri Kisan Urja Suraksha evam Utthan Mahabhiyan (PM-KUSUM) scheme implemented by Agricultural Engineering Department.
- After installation of the system, Assistant Engineer (AE)/Junior Engineer (AE) shall verify the RFID of the Solar panels and other components of the system and should ensure that they are provided as per the invoices and as per the approval given to the firms.
- If the pumping system requirement is more than 5 HP, **the cost in excess as prescribed in Government norms shall be borne by the farmers group.**
- The Assistant Engineer (AE)/Junior Engineer (AE) shall ensure that the warranty card, maintenance details and the service chart with details of contact person for break down / maintenance service for the 5 years comprehensive maintenance contract is handed over to the farmers group by the company who installed the system in the field. Copy of the acknowledgement should be obtained from the farmers group by the company which may also be kept in the sub division records.
- The Assistant Engineer (AE)/Junior Engineer (AE) shall ensure that the pumpset is covered under agricultural pumpset insurance policy.
- The Assistant Engineer (AE)/Junior Engineer (AE) shall ensure that pumpsets have protections from dry running, lightning, open circuit, accidental short circuit and reverse polarity.
- The Assistant Engineer (AE)/Junior Engineer (AE) shall ensure that the mounting equipments are sturdy and earthing protections are provided.

(b) Electrical pumping System:

- This system with Low Tension (LT) panels will be provided upto a capacity of 5 HP.
- If the pumping system requirement is more than 5 HP, the cost in excess as prescribed in Government norms shall be borne by the farmers group.
- Necessary housing arrangements shall be provided for electric panel, starter etc.,
- The cost for the electrification through Tamil Nadu Generation and Distribution Corporation Limited upto tube well / bore well / open well from nearby sub-station for an amount of Rs.2.5 Lakh per well shall be taken as ceiling cost. The actual amount will be taken based on the distance of the transformer and the electric supply plan considered while execution.
- The farmers group is free to choose any brand / make and type (HP) of electric pump from the empanelled list of firms approved by the Chief Engineer (AE), Agricultural Engineering Department.
- In case of submersible pumps, the details of the same should be recorded by the Assistant Engineer (AE)/ Junior Engineer (AE) at the time of installation.
- The Assistant Engineer / Assistant Executive Engineer (AE) should ensure that the solar / electric motor pump set functions and delivers the required quantity of water as per the specifications furnished by the supplying firm.
- *Maximum subsidy assistance is Rs.75,000/- per electric pump*

(iv) Water Conveyance pipe:

- Water Conveyance pipes of HDPE/PVC material of 200 m per irrigation source shall be provided wherever required for supply of water from the source to the farmer's field. In case of excess requirement, the additional cost shall be borne by the farmers group.
- The farmers group is free to choose the conveyance pipes from the empanelled list of firms approved by Tamil Nadu Horticulture Development Agency (TANHODA) or Chief Engineer(Agricultural Engineering),Agricultural Engineering Department.
- The Assistant Engineer (AE)/Junior Engineer (AE) and Assistant Executive Engineer (AE) should ensure that the conveyance pipe is as per specifications furnished by the supplying firm.
- The Assistant Engineer (AE)/Junior Engineer (AE) and Assistant Executive Engineer (AE) should ensure that the conveyance pipes under this component and the pipes provided for Micro Irrigation System are independent and there is no duplication of pipes.
- *Maximum subsidy assistance is Rs.20,000/- per well.*

General:

- All the works shall be implemented either of the following methods as per the willingness of the farmers group,
 - Back ended financial assistance by following the existing norms and conditions.
 - Following the tender rules in force as per the Tamil Nadu Transparency in Tenders Act, 1998 by the Department.
- After completion of the works, the Assistant Engineer (AE) / Junior Engineer (AE) should record the following items in the Measurement Book.
 - ❖ *Well details:*

Location of the well (SF. No.), Type of well, Diameter of the well and Depth of the well.
 - ❖ *Pump details:*

Electric pump: Pump make, Model, Horse Power, Sl. No of the pump and Electrification details.
 - ❖ *Solar pump:* Make, Model, Solar Panel Nos, Panel Sl. No, Pump controller Sl. No, Pump frame structure and RFID panel details.
 - ❖ *Conveyance pipe details:*

Material (PVC/HDPE), Size, Length, Make and CM/L No.
- In case the works are executed by the farmer's group themselves, the farmers group shall submit all the invoices / bills to the department and the same should be verified by the Assistant Engineer (AE) / Junior Engineer (AE) and shall be countersigned by Assistant Executive Engineer (AE).
- Before countersigning, Assistant Executive Engineer (AE) should ensure the following,
 - Location of the well is as per the geo physical report.
 - Details of RFID of the Solar panels and specifications of other components of the system are as per the invoices and as per the approval given to the firms, proper housing arrangements and delivery of the required quantity of water are as per the specifications furnished by the supplying firm.
 - The conveyance pipes are as per specifications furnished by the supplying firm.
 - The conveyance pipes are as per empanelled list of firms approved by Tamil Nadu Horticulture Development Agency or Chief Engineer (AE), Agricultural Engineering Department.

- The conveyance pipes under this component and the pipes provided for Micro Irrigation System are independent and there is no duplication of pipes.
- At the time of verification, it should be ensured by the Assistant Engineer (AE)/Junior Engineer (AE) that proper invoices with GST number are submitted by the farmers group.
- After verifying the above details, subsidy shall be released to the farmers group to their account.
- The assets created shall be recorded in the asset register of the farmers group which should be maintained regularly.
- The Assistant Engineer (AE)/Junior Engineer (AE) and the Assistant Executive Engineer (AE) should train the farmers group about the maintenance of the assets created.
- The geo tagging of all the components is mandatory.
- The beneficiaries shall be encouraged for installation of Micro Irrigation System and will be dovetailed under existing scheme of Government of India PMKSY- Per Drop More Crop - Micro Irrigation.
- **Wherever possible, Micro Irrigation shall be promoted in the clusters in merngence with PMKSY/other schemes. Similarly Artificial Recharge Structures shall be constructed in the clusters with other schemes to arrest the decline in water levels.**
- The farmers group shall be encouraged for undertaking water harvesting and ground water recharge through convergence with PMKSY – Watershed component and MGNREGS to ensure the long term ground water sustainability.
- The Executive Engineer (AE) should counter check and Superintending Engineer (AE) should super check the works as per the existing norms.
- After completion of the works, the completion report has to be prepared by the Assistant Engineer (AE)/Junior Engineer (AE) in time and the Assistant Executive Engineer should get it approved from the Executive Engineer (AE) before due time.
- The Assistant Engineer (AE) / Junior Engineer (AE) should give guidance to the farmers group for auditing and renewal of the registration every year since it is registered under Tamil Nadu Societies Registration Act 1975.
- Separate register shall be maintained by the Farmers regarding the pumping hours in case of electricity. For Solar Power, an exclusive methodology shall be developed for calculation of energy consumption which in turn can furnish the quantity of Ground Water Extraction. The extraction details shall be shared with SG & SWRDC for assessment purpose.

- A report containing the beneficiary details for each farmers group in the following format should be maintained in the sub divisions as well as division offices respectively.


Estimate No..... Date..... for Rs.....

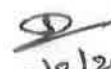
SI No	District	Block	Village	SF No.	Farmers group (Beneficiaries name)	Catego ry of farmers (SF/MF and women/ SC/ST)	Regis tration No. and date	Date of Work commencem ent	Date of Work completion	Amount spent

- The details for well, pumping system (Electric/Solar) and conveyance pipe as recorded in M.Book shall be maintained in a register at subdivision level.
- Proper documentation of all the activities for each farmers group should be made and maintained at sub division as well as at division level.

Gagandeep Singh Bedi
Agricultural Production Commissioner and
Principal Secretary to Government

/True Copy/


Section Officer


3/8/2020