



ABSTRACT

Agriculture and Farmers Welfare – Implementation of Project of Agricultural Engineering Department under RKVY-RAFTAAR for the year 2021-2022 - Financial sanction for an amount of Rs.13.535 crore as First Instalment accorded – Orders – Issued.

AGRICULTURE AND FARMERS WELFARE (AP1) DEPARTMENT

திருவள்ளூர் ஆண்டு 2052, பிலவ வருடம், புரட்டாசி - 5 ஆம் நாள்

G.O.(2D).No. 159

Dated 22.10.2021

Read:

1. Government letter No.25066/AP1/2021-12, Agriculture (AP1) Department, dated 28.04.2021.
2. From the Government of India, Ministry of Agriculture and Farmers Welfare, Department of Agriculture, Cooperation & Farmers Welfare, Letter F.No.7-1/2021-RKVY, dated 4.5.2021.
3. G.O.(2D) No.121, Agriculture and Farmers Welfare (AP1) Department, dated 1.7.2021.
4. From the Government of India, Ministry of Agriculture and Farmers Welfare, Department of Agriculture, Cooperation & Farmers Welfare, Letter F.No. 1-24/2021-RKVY/1, 2 & 3, dated 31.8.2021. (3 letters)
5. From the Executive Director, Tamil Nadu Watershed Development Agency, letter No.2829 / TAWDEVA / NADP/2020, dated 8.9.2021 and 13.9.2021.
6. From the Chief Engineer (Agricultural Engineering), letter No.AM1/37791/2020, dated 17.9.2021.

ORDER:

National Agriculture Development Programme / Rashtriya Krishi Vikas Yojana, is an important Centrally Sponsored flagship Programme implemented with an aim to make farming a remunerative economic activity through strengthening farmers' efforts, risk mitigation and promoting agri business entrepreneurship. National Agriculture Development Programme is being implemented in the State since the year 2007-08 through 15 implementing departments pertaining to agriculture and allied sectors. Project proposals under National Agriculture Development Programme (60:40 sharing basis) are put forth before the State Level Sanctioning Committee chaired by the Chief Secretary to Government for approval.

2. Accordingly, in the letter 1st read above, the 19th State Level Sanctioning Committee in its meeting held on 21.4.2021, has approved 74 project proposals worth Rs.361.485 crore on priority and 27 projects worth Rs.77.142 crore under shelf of projects and 3 projects worth Rs.4.532 crore from earlier shelf of projects totalling Rs.443.15 crore under National Agriculture Development Programme for the year 2021-22.

3. In the letter 2nd read above, the Government of India have allocated a sum of Rs.190.93 Crore as Central Share for the year 2021-22 for National Agriculture Development Programme / Rashtriya Krishi Vikas Yojana in the funding pattern of 60:40 sharing between Central and the State Governments. By adding the corresponding 40% State share of Rs.127.29 crore, the total allocation is worked out to Rs.318.22 crore.

4. In the Government Order, 3rd read above, the Government have accorded administrative approval for the 74 projects including the projects of Agricultural Engineering Department for an outlay of Rs.304.09 crore as downsized and recommended by Executive Director, Tamil Nadu Watershed Development Agency under National Agriculture Development Programme during 2021-22 in tune with the allocation made by Government of India. It has been stated that the financial Sanction will be issued separately as and when funds are released by Government of India.

5. In the letters 4th read above, the Government of India have released a sum of Rs.92.92 crore [Rs.90.18 crore for Normal National Agriculture Development Programme [(General – Rs.72.58 Crore) + (SCSP - Rs.17.28 Crore) + (TSP - Rs.0.32 Crore) as 1st instalment for the year 2021-2022 & Rs.2.74 crore for two sub schemes under National Agriculture Development Programme]. By adding the 40% State share of Rs.60.12 crore for Normal National Agriculture Development Programme, the total release for 1st instalment is worked out as Rs.150.30 crore.

6. For the first time in the History of Tamil Nadu, the Hon'ble Minister for Agriculture and Farmers Welfare has presented a separate Budget for Agriculture on the Floor of Legislative Assembly on 14.08.2021 and among others the following announcements relating to Chief Engineer (Agricultural Engineering) has been made:-

Announcement No.5

“Steps will be taken to find out ways and means for preparation of organic manures, growing tree seedlings, nursery gardening, mushroom cultivation, construction of polygreen houses, creation of custom hiring centers, distribution of fertilizers and pesticides, establishment of agri clinic, micro-irrigation service centers and export of agro-products etc. These youngsters will be encouraged to utilize their knowledge for good yield in fallow and rainfed lands by adopting modern techniques and also to procure the perishable produces from the farmers at fair price and distribute garden fresh produces to the consumers and this scheme will be implemented at a cost of Rs.2.68 crore with Union and State Government funds”

7. Based on the Government of India release, the Chief Engineer (Agricultural Engineering), has sent proposals alongwith guidelines for financial sanction for a sum of Rs.13.5350 crore under Rashtriya Krishi Vikas Yojana 2021-2022 as 1st instalment for the implementation of the following projects which include the announcement made by the Hon'ble Minister for Agriculture and Farmers Welfare for Agricultural Engineering Department. The Executive Director, Tamil Nadu Watershed Development Agency has recommended the proposal of Chief Engineer (Agricultural Engineering).

(Rs.in lakh)

S. No.	Title of the Project	P.P. No	Amount approved for 2021-22	Administrative sanction	1 st instalment
1.	Distribution of Post Harvest Technology and Management machinery / Value addition of machinery for all types of Horticulture, Food grain and Oil seed crops	19.20	500.00	500.00	143.80
2.	Provision of Solar Powered Fencing System with subsidy assistance to farmers to protect the crops from wild animals	19.21	500.00	500.00	82.00
3.	Promotion of Post Harvest Technology and Management Machinery Custom Hiring Centres also called as Value addition machinery facilitation centres	19.22	304.00	304.00	150.00
4.	Provision of Green House Type Polycarbonate Sheet Covered Solar Drying Unit to Farmers/ Farmers' Groups	19.23	200.00	200.00	50.00
5.	Establishment of Service Centre for Agriculture Machinery and Solar powered pumpsets	19.24	75.00	75.00	36.00
6.	Soil Conservation in the catchments of River Valley Project in Tamil Nadu	19.25	328.00	328.00	191.70
7.	Strengthening of Infrastructure for housing the Agricultural Engineering Department machinery for Custom Hiring to farmers	19.26	800.00	800.00	700.00
	Total		2707.00	2707.00	1353.50

8. Agriculture Mechanization is the need of the hour and Custom Hiring is the boon to farmers with small land holdings. Promoting renewable energy usage in agriculture and soil conservation assumes significant importance in the current climate change scenario.

9. The Government, after careful examination of the proposal of the Chief Engineer (Agricultural Engineering), as recommended by Executive Director, Tamil Nadu Watershed Development Agency hereby accord financial sanction for a sum of Rs.13.5350 Crore (Rupees Thirteen Crore Fifty Three Lakh and Fifty Thousand only) as 1st instalment for implementation of the PP.Nos. 19.20, 19.21, 19.22, 19.23, 19.24, 19.25 & 19.26 to the Chief Engineer (Agricultural Engineering), under National Agriculture Development Programme / Rashtriya Krishi Vikas Yojana for the year 2021-22 subject to the condition that under no circumstances any deviation from the decision of the State Level Sanctioning Committee is permitted. The funding pattern of the scheme is 60:40 sharing basis between the Central and State Governments. The Guidelines / Modalities for implementation of the above projects are given in Annexure II.

10. The amount sanctioned at para.9 above shall be debited to the Heads of account mentioned in Annexure I.

11. Necessary additional funds of Rs.33,66,000/- will be provided in Revised Estimate / Final Modified Appropriation 2021-2022 under the relevant head of account. Pending provision of such funds, the Chief Engineer (Agricultural Engineering) is permitted to draw and disburse the amount sanctioned in para.9 above. However, the expenditure shall be brought to the notice of the Legislature by **Specific Inclusion** in the Supplementary Estimate 2021-2022. The Chief Engineer (Agricultural Engineering) is directed to include this expenditure while sending the Budget proposal for Revised Estimate / Final Modified Appropriation 2021-2022 and also send necessary draft explanatory notes for including the above expenditure in the Supplementary Estimates 2021-2022 to Government in Finance (BG-I / Agri.) Department at the appropriate time without fail.

12. The Chief Engineer (Agricultural Engineering) is permitted to draw and disburse the funds to the State Nodal Account (SNA) through Public Financial Management System (PFMS) as per the new procedure for release and utilization of funds of Centrally Sponsored Scheme (CSS) issued by Government of India and also to operate the projects under National Agriculture Development Programme entirely using the PFMS.

11. The Chief Engineer (Agricultural Engineering) is permitted:

- i. to approve and empanel the value addition machinery manufacturing firms towards the distribution of machinery, solar fencing installing firms and Solar drying unit installing firms towards the installation of solar drying units under the scheme.
- ii. interchange the components according to the farmers' demand without altering the total outlay.
- iii. vary the proposed length of solar fencing during implementation of the programme without altering the total outlay, based on the response and demand of farmer for fencing with different lines and length.
- iv. vary the proposed numbers of Solar Drying units based on the response and demand of the farmers for different floor area without altering the total outlay.
- v. purchase the required machinery through tenders / GeM procedures towards the establishment of service centres.
- vi. to change the "Type Design" and the location based on the requirement and availability of land for construction of Agricultural Machinery sheds.

14. The Chief Engineer (Agricultural Engineering) is directed to implement the announcements made by the Hon'ble Minister for Agriculture and Farmers Welfare during Budget Session for the year 2021-2022 scrupulously.

15. The Chief Engineer (Agricultural Engineering) should personally oversee and ensure the technical, quality control and reasonableness of rates and estimates while implementing the schemes.

16. The Chief Engineer (Agricultural Engineering) is directed to follow the respective Operational Guidelines while implementing the schemes and permitted to utilize the savings amount if any, towards the formation of additional Value Addition Machinery Facilitation Centres / establishment of Agricultural Machinery service centre at block level.

17. The Chief Engineer (Agricultural Engineering) shall observe the comments / suggestions of State Level Sanctioning Committee while implementing the projects. The Executive Guidelines for implementation of the projects are given in Annexure II.

18. The Tamil Nadu Watershed Development Agency which is the Nodal Agency, in consultation with the Head of Departments to prescribe benchmarks for outcomes, milestones with time lines and monitor the outcomes through RDMIS to ensure that they are adhered to by the implementing departments.

19. The Executive Director, Tamil Nadu Watershed Development Agency is requested to send the monthly progress report to the Government of India, in the prescribed format by 10th of the subsequent month under intimation to this Government without fail.

20. This order issues with the concurrence of the finance Department vide its U.O.No.42015/Fin(Agri&FVW)/2021, dated 22.10.2021 and Additional Sanction Ledger No.642 (Six Hundred and Forty Two).

(BY ORDER OF THE GOVERNOR)

C.SAMAYAMOORTHY
AGRICULTURAL PRODUCTION COMMISSIONER
AND SECRETARY TO GOVERNMENT

To

The Chief Engineer (Agricultural Engineering), Chennai -35

The Director of Horticulture and Plantation Crops, Chennai -5.

The Director of Agriculture, Chennai - 5.

The Commissioner of Agricultural Marketing & Agri-Business, Chennai -32.

The Director of Seed Certification & Organic Certification, Coimbatore-13.

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

The Secretary, Government of India, Ministry of Agriculture and Farmers Welfare, Department of Agriculture, Cooperation & Farmers Welfare, Krishi Bhavan, New Delhi -110 001.

The Secretary, Government of India, Ministry of Agriculture and Farmers Welfare, Department of Animal Husbandry, Krishi Bhawan, New Delhi -110 001.

The Adviser (Agriculture), Planning Commission, Government of India, Yojana Bhawan, Sansad Marg, New Delhi-110 001.

The Professor and Head (CPME), National Institute of Rural Development, Ministry of Rural Development, Government of India, Rajendra Nagar, Hyderabad- 500 030.

The Principal Secretary to Government, Animal Husbandry, Dairying and Fisheries Department, Chennai-9.

The Member-Secretary, State Planning Commission, Chennai-5

All District Collectors.

The Pay and Accounts Officer, Chennai - 8/ Chennai - 35/ Chennai - 1.

The Treasury Officer / Sub-Treasury Officer concerned.

The Principal Accountant General (AE / Audit), Chennai - 18.

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

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

The Resident Audit Officer, O/o Principal Accountant General (General and Social Sector Audit), Chennai - 9.

Copy to:

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

The Finance (Agri / BG.I / B.G.II/W&M.I) Department, Chennai - 9.

The connected file No.20019/AP1/2021.

Spare Copies / Stock Files.

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LD - 21005154
20/10/21
SECTION OFFICER

20/10/21

ANNEXURE I

**(G.O (2D) No.159, Agriculture and Farmers Welfare (AP1) Department,
Dated 22.10.2021)**

PP.No.19.20 Distribution of Post Harvest Technology and Management machinery / Value Addition Machinery for all types of Horticulture, Food grain and Oil seed crops

For General Category farmers – Rs.129.10 Lakh

Central Share

2402-00-Soil and Water conservation-102 Soil Conservation - Schemes Shared between State and Centre – UU - National Agriculture Development Programme (NADP-RKVY)- Agricultural Engineering Department -311 subsidies -01 Individual Based Subsidy

(IFHRMS: 2402-00-102-UU-31101) - Rs.77.46 Lakh

State Share

2402-00-Soil and Water Conservation - 102 Soil conservation - Schemes Shared between State and Centre- UY - National Agriculture Development Programme (NADP-RKVY) – Agricultural Engineering Department- State Share- 311 Subsidies- 01 Individual Based Subsidy

(IFHRMS : 2402-00-102-UY-31101)- Rs.51.64 Lakh

For SCSP Category farmers – Rs.14.70 Lakh

Central Share

2402-00-Soil and Water Conservation- 793 Special Central Assistance for Scheduled Caste Component Plan- Schemes Shared between State and Centre -UA- National Agricultural Development Programme- Rashtriya Krishi Vikas Yojana (NADP-RKVY) – Agricultural Engineering Department under Special Component Plan-311 Subsidies - 01 Individual Based Subsidy

(IFHRMS: 2402-00-793-UA -31101)- Rs.8.82 Lakh.

State Share

2402-00-Soil and Water Conservation- 793 Special Central Assistance for Scheduled Caste Component Plan- Schemes Shared between State and Centre-UD - National Agricultural Development Programme - Rashtriya

Krishi Vikas Yojana (NADP-RKVY)- Agricultural Engineering Department under Special Component Plan-State Share-311 Subsidies - 01 Individual Based Subsidy.

(IFHRMS : 2402-00-793-UD-31101)-Rs.5.88 Lakh.

PP.No.19.21 Provision of Solar Powered Fencing System with subsidy assistance to farmers to protect the crops from wild animals

For General Category farmers – Rs.70.00 Lakh

Central Share

2402-00-Soil and Water conservation-102 Soil conservation - Schemes Shared between State and Centre – UU-National Agriculture Development Programme (NADP-RKVY)- Agricultural Engineering Department -311 Subsidies -01 Individual Based Subsidy

(IFHRMS: 2402-00-102-UU-31101) - Rs.42.00 Lakh

State Share

2402-00-Soil and Water conservation-102 Soil conservation - Schemes Shared between State and Centre- UY-National Agriculture Development Programme (NADP-RKVY) – Agricultural Engineering Department- State Share- 311 Subsidies- 01 Individual Based Subsidy

(IFHRMS: 2402-00-102-UY-31101)- Rs.28.00 Lakh

For SCSP Category farmers – Rs.12.00 Lakhs

Central Share

2402-00-Soil and Water Conservation- 793 Special Central Assistance for Scheduled Caste Component Plan- Schemes Shared between State and Centre -UA- National Agricultural Development Programme- Rashtriya Krishi Vikas Yojana (NADP-RKVY) – Agricultural Engineering Department under Special Component Plan-311 Subsidies-01 Individual Based Subsidy

(IFHRMS: 2402-00-793-UA -31101)- Rs.7.20 Lakhs.

State Share

2402-00-Soil and Water Conservation- 793 Special Central Assistance for Scheduled Caste Component Plan- Schemes Shared between State and Centre-UD-National Agricultural Development Programme - Rashtriya Krishi Vikas Yojana (NADP-RKVY)- Agricultural Engineering Department under Special component Plan-State Share-311 Subsidies -01 Individual Based Subsidy.

(IFHRMS: 2402-00-793-UD-31101)-Rs.4.80 Lakhs.

PP.No.19.22 Promotion of Post Harvest Technology and Management Machinery Custom Hiring Centres / Value Addition Machinery Facilitation Centre

For General Category farmers – Rs.140.00 Lakh

Central Share

2402-00-Soil and Water conservation-102 Soil conservation – Schemes Shared between State and Centre – UU - National Agriculture Development Programme (NADP-RKVY)- Agricultural Engineering Department -311 subsidies -01 Individual Based Subsidy

(IFHRMS: 2402-00-102-UU-31101) – Rs.84.00 Lakh

State Share

2402-00-Soil and Water conservation-102 Soil conservation – Schemes Shared between State and Centre- UY - National Agriculture Development Programme (NADP-RKVY) – Agricultural Engineering Department- State Share- 311 Subsidies- 01 Individual Based Subsidy

(IFHRMS : 2402-00-102-UY-31101)- Rs.56.00 Lakh

For SCSP Category farmers – Rs.10.00 Lakh

Central Share

2402-00-Soil and Water Conservation- 793 Special Central Assistance for Scheduled Caste Component Plan- Schemes Shared between State and Centre – UA- National Agricultural Development Programme- Rashtriya Krishi Vikas Yojana (NADP-RKVY) – Agricultural Engineering Department under Special Component Plan-311 Subsidies -01 Individual Based Subsidy

(IFHRMS: 2402-00-793-UA -31101)- Rs.6.00 Lakh.

State Share

2402-00-Soil and Water Conservation- 793 Special Central Assistance for Scheduled Caste Component Plan- Schemes Shared between State and Centre-UD - National Agricultural Development Programme – Rashtriya Krishi Vikas Yojana (NADP-RKVY)- Agricultural Engineering Department under Special Component Plan-State Share-311 Subsidies -01 Individual Based Subsidy.

(IFHRMS :2402-00-793-UD-31101)-Rs.4.00 Lakh.

PP.No.19.23 Provision of Green House Type Polycarbonate Sheet Covered Solar Drying Unit to Farmers/ Farmers' Groups

For General Category farmers – Rs.40.00 Lakh

Central Share

2402-00-Soil and Water conservation-102 Soil conservation - Schemes Shared between State and Centre – UU - National Agriculture Development Programme (NADP-RKVY) - Agricultural Engineering Department -311 Subsidies -01 Individual Based Subsidy

(IFHRMS: 2402-00-102-UU-31101) - Rs.24.00 Lakh

State Share

2402-00-Soil and Water conservation-102 Soil conservation - Schemes Shared between State and Centre - UY - National Agriculture Development Programme (NADP-RKVY) – Agricultural Engineering Department - State Share- 311 Subsidies- 01 Individual Based Subsidy

(IFHRMS: 2402-00-102-UY-31101)- Rs.16.00 Lakh

For SCSP Category farmers – Rs.10.00 Lakh

Central Share

2402-00-Soil and Water Conservation - 793 Special Central Assistance for Scheduled Caste Component Plan- Schemes Shared between State and Centre – UA - National Agricultural Development Programme - Rashtriya Krishi Vikas Yojana (NADP-RKVY) – Agricultural Engineering Department under Special Component Plan - 311 – Subsidies - 01 Individual Based Subsidy

(IFHRMS: 2402-00-793-UA -31101)- Rs.6.00 Lakh.

State Share

2402-00 - Soil and Water Conservation - 793 Special Central Assistance for Scheduled Caste Component Plan - Schemes Shared between State and Centre-UD National Agricultural Development Programme - Rashtriya Krishi Vikas Yojana (NADP-RKVY) - Agricultural Engineering Department under Special component Plan - State Share - 311 Subsidies - 01 Individual Based Subsidy.

(IFHRMS: 2402-00-793-UD-31101)- Rs.4.00 Lakh.

PP.No.19.24 Establishment of Service Centre for Agriculture Machinery and Solar powered pumpsets

For General Category – Rs.36.00 Lakh

Central Share

2402-00-Soil and Water conservation-102 Soil conservation - Schemes Shared between State and Centre – UU - National Agriculture Development Programme (NADP-RKVY)- Agricultural Engineering Department -311 Subsidies -01 Individual Based Subsidy

(IFHRMS: 2402-00-102-UU-31101) - Rs.21.60 Lakh

State Share

2402-00-Soil and Water conservation-102 Soil conservation - Schemes Shared between State and Centre- UY - National Agriculture Development Programme (NADP-RKVY) – Agricultural Engineering Department- State Share- 311 Subsidies- 01 Individual Based Subsidy

(IFHRMS: 2402-00-102-UY-31101)- Rs.14.40 Lakh

PP.No.19.25 Soil Conservation in the catchments of River Valley Project in Tamil Nadu

(Rs.in lakh)

Sl. No	Head of Account	BE 2021-22 provision	Project outlay for the year 2021-22	1 st Installment
1	<p>For General Category: 4402-00 Capital Outlay on Soil and Water Conservation - 102 Soil Conservation - Schemes Shared between State and Centre - UD - National Agriculture Development Programme - (NADP-RKVY) Agricultural Engineering Department - 416 Major Works- 01-Major works. (IFHRMS DPC: 4402-00-102-UD-41601)</p>	384.00	163.92	103.92
2	<p>4402-00 Capital Outlay on Soil and Water Conservation - 102 Soil Conservation - Schemes Shared between State and Centre - UE - National Agriculture Development Programme - (NADP-RKVY) Agricultural Engineering Department - State Share - 416 Major Works- 01-Major works. (IFHRMS DPC: 4402-00-102-UE-41601)</p>	256.00	109.28	69.28
3	<p>For SCSP Category: 4402-00 Capital Outlay on Soil and Water Conservation - 793 Special Central Assistance for Scheduled Caste Component Plan -Schemes shared between state and centre - UA - National Agriculture Development Programme - Rashtriya Krishi Vikas Yojana (NADP-RKVY) Agricultural Engineering Department under Special Component Plan - 416 Major Works-01 Major Works. (IFHRMS DPC: 4402-00-793-UA-41601)</p>	444.00	19.92	10.14
4	<p>4402-00 Capital Outlay on Soil and Water Conservation - 793 Special Central Assistance for Schedule Caste Component Plan -Schemes Shared between State and Centre - UB - National Agriculture Development Programme - Rashtriya Krishi Vikas Yojana (NADP-RKVY) Agricultural Engineering Department under Special Component Plan - State share- 416 Major Works- 01 Major Works. (IFHRMS DPC: 4402-00-793-UB-41601)</p>	296.00	13.28	6.76
5	<p>For TSP Category: 4402-00 Capital Outlay on Soil and Water Conservation - 794 Special Central Assistance for Tribal Sub Plan -Schemes Shared between State and Centre - UA - National Agriculture Development Programme - Rashtriya Krishi Vikas</p>	72.00	12.96	0.96

	Yojana (NADP-RKVY) Agricultural Engineering Department under Special Component Plan- 416 Major Works-01 Major Works. (IFHRMS DPC: 4402-00-794-UA-41601)			
6	4402-00 Capital Outlay on Soil and Water Conservation - 794 Special Central Assistance for Tribal Sub Plan -Schemes Shared between State and Centre - UB - National Agriculture Development Programme - Rashtriya Krishi Vikas Yojana (NADP-RKVY) Agricultural Engineering Department under Special Component Plan- - State share- 416 Major Works-01 Major Works. (IFHRMS DPC: 4402-00-794-UB-41601)	48.00	8.64	0.64
Total		1500.00	328.00	191.70

PP.No.19.26 Strengthening of Infrastructure for housing the Agricultural Engineering Department machinery for Custom Hiring to farmers

Sl. No.	Head of Account	Amount (Rs. in Lakh)
	For General Category	
1	"4402 – 00 Capital Outlay on Soil and Water Conservation – 102 -Soil Conservation – Schemes Shared between State and Centre- UD- National Agriculture Development Programme – (NADP-RKVY) Agricultural Engineering Department – 416 Major Works – 01 Major Works" (IFHRMS D.P.Code.4402-00-102- UD- 41601)	264.00
2	"4402 – 00 Capital Outlay on Soil and Water Conservation – 102 -Soil Conservation – Schemes Shared between State and Centre- UE- National Agriculture Development Programme – (NADP-RKVY) Agricultural Engineering Department – State Share – 416 Major Works – 01 Major Works" (IFHRMS D.P.Code.4402-00-102- UE- 41601)	176.00
	For SCSP Category	
3	"4402 – 00 Capital Outlay on Soil and Water Conservation – 793 Special Central Assistance for Scheduled Castes Component Plan - Schemes Shared between State and Centre – UA - National Agriculture Development Programme – RKVY (NADP-RKVY) Agricultural Engineering Department under Special Component Plan– 416 Major Works– 01 Major Works" (IFHRMS D.P.Code.4402-00-793- UA- 41601)	154.08
4	"4402 – 00 Capital Outlay on Soil and Water Conservation – 793 Special Central Assistance for Schedule Castes Component Plan - Schemes Shared between State and Centre – UB - National Agriculture Development Programme – Rashtriya Krishi Vikas Yojana(NADP-RKVY) Agricultural Engineering Department under Special Component Plan – State Share – 416 Major Works– 01 Major Works" (IFHRMS D.P.Code.4402-00-793- UB- 41601)	102.72

5	For TSP Category "4402 – 00 Capital Outlay on Soil and Water Conservation – 794 Special Central Assistance for Tribal Sub Plan - Schemes Shared between State and Centre – UA - National Agriculture Development Programme – Rashtriya Krishi Vikas Yojana (NADP-RKVY) Agricultural Engineering Department under Special Component Plan – 416 Major Works– 01 Major Works". (IFHRMS D.P.Code.4402-00-794- UA- 41601)	1.92
6	"4402 – 00 Capital Outlay on Soil and Water Conservation – 794 Special Central Assistance for Tribal Sub Plan - Schemes Shared between State and Centre – UB - National Agriculture Development Programme – Rashtriya Krishi Vikas Yojana (NADP-RKVY) Agricultural Engineering Department under Special Component Plan – State Share – 416 Major Works– 01 Major Works". (IFHRMS D.P.Code.4402-00-794- UB- 41601)	1.28
Total		700.00

C.SAMAYAMOORTHY
AGRICULTURAL PRODUCTION COMMISSIONER
AND SECRETARY TO GOVERNMENT

//TRUE COPY//

L. Srinivas
22/10/24
SECTION OFFICER

(Signature)

ANNEXURE II

**(G.O (2D) No.159, Agriculture and Farmers Welfare (AP1) Department,
dated 22.10.2021)**

**P.P.No.19.20 Modalities / Guidelines for the implementation of the scheme of
Agricultural Engineering Department under NADP of Distribution of Post
Harvest Technology and Management (PHTM) Machinery / Value Addition
Machinery**

Empanelment and Approval of Value Addition Machinery manufacturing firms

- The Agricultural Engineering Department approves the firms which are manufacturing / supplying the Value Addition Machinery to the farmers/farmers groups/FPOs/Self Help Group/ User Groups and Entrepreneurs as per the SMAM guidelines issued by Govt.of India for the Distribution of Value Addition Machinery programme implemented by Agricultural Engineering Department.
- The subsidy is provided as per the SMAM guidelines issued by the Govt.of India and as per the minutes of 19th State Level Sanctioning Committee of National Agriculture Development Programme for the Distribution of PHTM Machinery / Value Addition Machinery programme.

**Eligibility and Farmers / Farmers groups/ FPOs/Self Help Group / User Groups
of farmers choice**

- All Farmers / Farmers groups/FPOs/Self Help Group / User Groups of farmers/ Entrepreneurs are eligible to avail subsidy for the purchase of PHTM Machinery / Value Addition Machinery under this scheme.
- The Farmers / Farmers groups/FPOs/Self Help Group / User Groups of farmers/ Entrepreneurs shall submit an application to the Assistant Executive Engineer(AE) office furnishing the details of Value addition machinery, the make, model etc., they want to purchase under the subsidy scheme.
- The Farmers / Farmers groups/FPOs/Self Help Group / User Groups of farmers/ Entrepreneurs are free to choose any brand / make, model and any

type of PHTM Machinery / Value Addition Machinery as per their choice from the empanelled and approved list given by the Agricultural Engineering Department.

- The Farmers / Farmers groups/FPOs/Self Help Group / User Groups of farmers/ Entrepreneurs concerned shall submit the applications for PHTM Machinery / Value addition machinery in the Sub divisions.
- A separate application register is to be maintained in the sub division offices of the department, wherein the details of applications are maintained based on the date of receipt.
- The department officials shall guide the Farmers / Farmers groups/FPOs/Self Help Group / User Groups of farmers/ Entrepreneurs on the selection of machinery based on the type of crop grown in that particular area. This guidance will be for selection of suitable type of PHTM Machinery / Value Addition Machinery, power range etc., only and not for any brand or make, which is left to the choice of the Farmers / Farmers groups/FPOs/Self Help Group / User Groups of farmers/ Entrepreneurs.

Fund allocation

- Value Addition Machinery wise approximate quantity and necessary funds under the scheme will be allocated to the Assistant Executive Engineer (AE)s through the Superintending Engineer (AE) and Executive Engineer (AE) based on the demand for the type of PHTM Machinery / Value Addition Machinery, i.e., no. of applications pending in the office, subject to the fund availability in the scheme Government Orders.

Drawal of Demand Draft by the farmer

- On receipt of allocation of funds and number of machinery under each category, the Assistant Executive Engineer (AE) will inform the Farmers / Farmers groups/FPOs/Self Help Group / User Groups of farmers/

Entrepreneurs as per seniority found in the Register and inform them of provisional allocation information.

- At the same time the Assistant Engineer (AE) / Junior Engineer (AE) should make a field visit and verify the land records, EB connection and ascertain the eligibility of the Farmers / Farmers groups/FPOs/Self Help Group / User Groups of farmers/ Entrepreneurs for availing the subsidy.
- The Farmers / Farmers groups/FPOs/Self Help Group / User Groups of farmers/ Entrepreneurs after getting the intimation letter from the Assistant Executive Engineer (AE) of Agricultural Engineering Department can negotiate with the concerned Dealer / manufacturer for reduction in the dealer's / Manufacturer's sale price of the PHTM Machinery / value addition machinery they want to purchase. **The Manufacturer's / dealer's sale price is equal to or lesser than the Maximum Retail Price (MRP) of the manufacturer which is inclusive of the Basic cost of the machinery, Goods and Services Tax (GST) and Transportation cost.**
- The Farmers / Farmers groups/FPOs/Self Help Group / User Groups of farmers/ Entrepreneurs after negotiation with the dealer, have to take a Demand Draft (DD) on the negotiated sale price of the PHTM Machinery / Value addition machinery only in favour of the Manufacturer approved by the Chief Engineer (AE), Agricultural Engineering Department.
- The Farmers / Farmers groups/FPOs/Self Help Group / User Groups of farmers/ Entrepreneurs have to hand over the Demand Draft directly to the concerned manufacturer / dealer of the manufacturer within 15 days time from the receipt of a selection information letter from the concerned Assistant Executive Engineer (AE)'s office. If the Farmers / Farmers groups/FPOs/Self Help Group / User Groups of farmers/ Entrepreneurs do not respond by producing the Demand Drafts, the next Farmers / Farmers groups/FPOs/Self Help Group /User Groups of farmers/ Entrepreneurs will be considered.

Processing of applications

- The Farmers / Farmers groups/FPOs/Self Help Group / User Groups of farmers/ Entrepreneurs have to submit the self attested Photostat copies of Demand Draft and the Receipt for receiving the Demand Draft from the dealer / manufacturer to the Assistant Executive Engineer (AE) office. At this stage, the application of the Farmers / Farmers groups/FPOs/Self Help Group / User Groups of farmers/ Entrepreneurs is transferred from the 'Application Register' to the 'Priority Register'.
- Upon receipt of the Demand Draft for the total cost of the PHTM Machinery / Value addition machinery, the Assistant Executive Engineer (AE) scrutinizes the documents attached with the application including quotation, company approval etc.. The Assistant Executive Engineer (AE) places the supply order on behalf of the Farmers / Farmers groups/FPOs/Self Help Group / User Groups of farmers/ Entrepreneurs directly to the manufacturer or dealers for applied machinery with a copy to the Executive Engineer (AE) concerned.
- The Machinery has to be delivered in good working condition at the Farmers / Farmers groups/FPOs/Self Help Group / User Groups of farmers/ Entrepreneurs site/place/location and to be demonstrated for the performance to the satisfaction of the Farmers / Farmers groups/FPOs/Self Help Group / User Groups of farmers/ Entrepreneurs in the presence of Departmental Engineer within 15 days from the date of issue of supply order.
- The bill of cost in quadruplicate raised in the name of the concerned Farmers / Farmers groups/FPOs/Self Help Group / User Groups of farmers/ Entrepreneurs should reach the Assistant Executive Engineer (AE) office immediately after the delivery of Value Addition Machinery.
- A certificate of satisfactory performance of the PHTM Machinery / Value Addition Machinery is to be obtained from the Farmers / Farmers

groups/FPOs/Self Help Group / User Groups of farmers/ Entrepreneurs and to be endorsed by the Assistant Engineer (AE) / Junior Engineer (AE).

Agreement of the Farmers / Farmers groups/FPOs/Self Help Group / User Groups of farmers/ Entrepreneurs

- An agreement should be obtained from the Farmers / Farmers groups/FPOs/Self Help Group / User Groups of farmers/ Entrepreneurs in Rs.30/- stamp paper by the concerned Assistant Executive Engineer (AE) stating that Farmers / Farmers groups/FPOs/Self Help Group / User Groups of farmers/ Entrepreneurs will not sell the PHTM Machinery / Value Addition Machinery purchased under Distribution of PHTM Machinery / Value Addition Machinery programme of Agricultural Engineering Department for atleast four years from the date of purchase.

Release of subsidy

- The Motor Number / Engine Number, Chassis Number and Serial Number of the PHTM Machinery / Value Addition Machinery should be compulsorily engraved instead of detachable plates.
- During the physical verification, it should be ensured that the Maximum Retail Price (MRP) of the product is clearly indicated on the product itself at prominent places and is clearly visible.
- **The Motor Number / Engine Number, Chassis Number, Serial Number and specifications of the PHTM Machinery / Value Addition Machinery should be written in invoice compulsorily by the Dealer or Manufacturer and it should be verified by Assistant Engineer (AE) / Junior Engineer (AE) and rechecked by the Assistant Executive Engineer (AE) immediately after supply of PHTM Machinery / Value Addition Machinery and before release of the subsidy to the Farmers / Farmers groups/FPOs/Self Help Group / User Groups of farmers/ Entrepreneurs. The Executive Engineer (AE)s and Superintending Engineer (AE)s shall also**

make surprise inspection and verify the availability of the machinery / equipment supplied to the Farmers / Farmers groups/FPOs/Self Help Group / User Groups of farmers/ Entrepreneurs in the instant case.

- The subsidy portion based on the negotiated sale price is to be released electronically to each Farmers / Farmers groups/FPOs/Self Help Group / User Groups of farmers/ Entrepreneurs bank account only as back ended subsidy (or) Direct Benefit Transfer through ECS or RTGS after making all the checks mentioned above, within a weeks time and proper acknowledgement for the subsidy portion is to be obtained from the Farmers / Farmers groups/FPOs/Self Help Group / User Groups of farmers/ Entrepreneurs or the amount credited to their account details.

General

- Care should be taken to ensure prompt service by the manufacturing firms / dealers in case of any requirements of repairs or maintenance. Any delay in these aspects should be brought to the knowledge of the Chief Engineer (AE)'s office for taking appropriate action.
- Separate 'Machinery distribution' register should be maintained by the Assistant Executive Engineer (AE) for release of subsidy portion with all details including Motor Number / Engine Number and Chassis Number etc.,
- Display boards regarding the availability of Value Addition Machinery and its hire charges should be placed so as to benefit other farmers to utilize the machinery through hiring.

Registers should contain the following items

(Separate pages may be allotted for each category of Value Addition Machinery)

1. Name and full address of the Farmers / Farmers groups/FPOs/Self Help Group / User Groups of farmers/ Entrepreneurs;
2. Aadhar No.of the Farmers / Farmers groups/FPOs/Self Help Group / User Groups of farmers / Entrepreneurs;

3. S.F.No, Name of Village, Union, Taluk ;
4. Bank Account details of the Farmers / Farmers groups/FPOs/Self Help Group / User Groups / Co-operative societies of farmers (Name of the Bank (Branch / District), Account No., IFSC code of the bank and MICR code of the Bank);
5. Extent and category of Farmer (MF/SF/others/SC& ST/ Women/ Farmers Group / Society etc.);
6. Date of receipt of application;
7. Date of receipt of Quotation;
8. Date of Receipt of Xerox copy of Demand Draft for total cost including the Subsidy Portion (DD No. Date, Bank, Amount);
9. Name of the Manufacturer/Dealer with address;
10. Supply order No. and Date;
11. Date of delivery of the Value Addition Machinery:
12. Delivery Chalan / Invoice No. and Date;
13. Specifications of the machinery
 - (a) Make
 - (b) Model
 - (c) HP
 - (d) Motor Number / Engine Number
 - (e) Chassis Number
14. Name of the AE/JE who verified the Value addition machinery
15. Date of verification:
16. Date of release of subsidy to the beneficiary;
17. Acknowledgement of the beneficiary;
18. Remarks;
19. Initials of Assistant Executive Engineer (AE).

PP.No.19.21 Provision of Solar Powered Fencing System with subsidy assistance to farmers to protect the crops from wild animals

Guidelines for Solar Powered Fencing System 2021-22

Farmers in the different areas of Tamil Nadu are facing problem with animals. like Cow, Goat, Deer, Wild Boar, Bison and Elephant, etc., which enter the fields where crops like Banana, fruits, tuber crops etc., are cultivated and spoil them, ultimately reducing the yield and makes loss to the farmers.

The electric fence is a method of controlling the cropped land from the damages caused by animals by supplying continuous supply of electric current into the fence wires. In spite of being an effective method of controlling animals, the continuous high power killed not only the spoiling animals but also the innocent creatures and humans. Hence, short duration impulse of electric current was being supplied to the fence as an alternate to continuous supply. The advantage of short duration electric impulse is that it acts as a psychological barrier and prevents the animals which try to cross the fence rather than killing them. However, many remote villages are not accessible to power supply in Tamil Nadu. Hence, the use of solar power overcomes the above disadvantage.

To promote the utilization of solar energy and to avoid the damage of crops by animals, Solar powered fencing systems to farmers at subsidy assistance are implemented in various districts of Tamil Nadu under National Agriculture Development Programme (NADP) from the year 2020-21.

1. Beneficiary Identification

- I. Wide publicity to be given for the programme through press release, issue of pamphlets etc., and propagate the scheme during the Mass contact programmes convened by the district Collector and other farmers' gatherings and mobilize applications from the farmers.
- II. The selection of villages for execution of the scheme shall also include the areas covered in "**Kalagainarin Anaithu Grama Velaan Valarchi Thittam**" to ensure an overall agricultural development and self sufficiency in all the Villages.
- III. Approved companies will also be requested to explain the benefit of the scheme to the farmers and get the applications from willing farmers in their favour.
- IV. Priority registers will be maintained in each sub divisional offices and implementation of the programme is based on the seniority of farmers.

2. Eligibility

- I. The Solar Fence is to be provided to the individual farmers who are willing to pay the total cost of installation and agree to get 40% of the total cost as back ended subsidy. The individual farmer is eligible for the subsidy assistance of 40 % of total cost of system up to 566 m and up to 2 ha. The site for installation of the solar fence will be in the individual beneficiary's field only.
- II. The farmer is free to choose any of the company and model from the list of the empanelled vendors of the department for the supply and installation of solar fencing system in his field.
- III. The demand from the farmers for installation of solar powered fencing system to be analyzed based on the length requirements of farmers. For protection from animals viz., Cow, Goat, Wild Boar, Bison and Deer, "Normal" type of fencing is to be

provided. To address the elephant menace faced by farmers in certain areas, a special type of fencing viz., "Hanging" type is also proposed to be provided under the scheme.

IV. The approved rates will be separately for 5 line, 7 line and 10 lines for 'Normal' fence wire type (for protection against animals excluding elephant) and 'Normal' + 'Hanging' fence wire type (for protection against animals including elephants).

V. The solar fencing unit can be provided as per the requirement of the beneficiary farmer and not mandatory to provide for all the 4 sides, provided the sides which are not given solar fencing are protected from animals by any other means like fencing in adjoining farmers fields etc., Also, if the field of the farmer is of irregular shape with zig-zag boundaries and sharp turns additional fencing posts may be required as per field conditions and hence the additional cost. over and above the cost approved shall be borne by the farmer.

VI. If the Solar Fencing Unit is provided jointly for the farmers who owns land adjacent to each other shall be installed as given below;

If the members of a family (who owns land adjacent to each other) join together and apply for subsidy for the execution of solar fencing, an undertaking shall be obtained from all such farmers in such a way that

1) They will maintain the fencing units jointly

2) Agree to keep the energizer, solar panel and battery in one of the farmer's field

3) Agree to release subsidy as per eligible norms to the family member in whose field, the fixed units are placed.

4) Subsidy to be restricted up to 2 ha for individual landholdings and eligible length to be arrived as per the prescribed norms only.

This fact has to be ensured without fail by the AE/JE and AEE of subdivisions for the fields where solar fencing is not proposed for all the 4 sides before issue of work orders.

3. Site Surveying

- I. The Solar Fence should be designed, fabricated and installed according to the site conditions. The physical site surveying shall be done by the concerned company representative in the farmer's field in order to prepare the quotations for installing the solar fencing system in the farmer's field.
- II. The schematic representations of installing fields should indicate all the components of Solar Fencing Units along with FMB and shall be submitted to the concerned sub divisional office of Agricultural Engineering Department along with the quotation and bill of quantity. After completion of site survey in the concerned farmers field, who are willing to take Demand Draft for the total cost of the system, the installing firms have to submit the detailed quotations along with bill of quantity for the approved rates in the rate contract tender and schematic representation of field.
- III. The schematic representations of installing fields should indicate all the components of Solar Fencing Units along with FMB shall be submitted to the sub divisional AE/JEs. The quotation and bill of quantity may vary based on the field size and shape and the reasonableness of the bill of quantity furnished by the companies for a particular field shall be ascertained by the sub divisional Assistant Engineer/Junior Engineer and Assistant Executive Engineer (AE)'s.

4. Issue of work order

- I. After getting the approval of quotations from the sub divisional officials the farmer has to take a Demand Draft (DD) for the total cost of Solar Fencing Unit (including subsidy portion) in favour of successful empanelled firm. Work orders will be issued from time to time by the sub divisional officers of AED, after getting the copy of Demand Draft furnished by the identified beneficiary in favour of the concerned empanelled firm.
- II. If the farmers/firms installs the solar fencing unit on its own accord without the issue of work order of the sub divisional officer of Agricultural Engineering Department, in that case the farmers is not eligible to claim the subsidy under the scheme.
- III. The quotation and bill of quantity may vary based on the field size and shape and the reasonableness of the bill of quantity furnished by the companies for a particular field will be ascertained by the sub divisional Assistant Engineer/Junior Engineer and Assistant Executive Engineer (AE)'s. Also, the fixed units like energizer, solar panel and battery etc., shall be provided as per the technical specifications and bill of quantity for each solar fencing unit without fail. Further while preparing estimate and quotation, the companies shall be directed to restrict the fence wire wastages to a maximum of 5%.

5. Subsidy Calculation

- I. A farmer shall be eligible for assistance up to a length of 566 m up to 2 ha of area for solar fencing in his field. Subsidy for the installation of solar powered fencing system is directly paid to the farmer's account as back ended subsidy.
- II. The Subsidy amount for the installation of solar powered fencing system will be directly paid to the farmer's account as back ended subsidy by the concerned Assistant Executive Engineer.
- III. The following procedure is to be adopted for arriving at the eligible length of fencing for subsidy calculation for the given area by assuming the field as a square plot.

Total length of fencing (in metre) required for all the 4 sides of the square plot of given area = $4 \times \sqrt{\text{Area of fencing proposed in } m^2}$

The total length for 2 ha area is thus arrived as 566 m. Therefore even if the area to be covered is more than 2 ha, the eligible length for subsidy has to be restricted for the limit of 2 ha area (i.e.) for 566 m only. The subsidy shall be arrived for the actual length of fencing subject to the maximum eligible length for the area proposed to be protected as per the subsidy calculation methodology prescribed above by restricting the area up to 2 ha.

In the Solar fencing systems the following components are **“Fixed” components** viz., energizer, solar panel, module mounting structure, battery, fence alarm, Fence live light, housing box, lightening diverter kit, earthing arrangements, neon tester, automatic shut off arrangements and warning sign board. **“Variable” components** includes fence wire (normal and hanging wires), tying wire, insulators, permanent wire tighteners, intermediate post, corner post, support pipe, lead out cable, permanent tension spring and other accessories. The Framed Gate Structure with gate handle and Global System for Mobile communication (GSM) as Monitoring Equipment are provided as **optional Items**. The rates with break up for fixed cost and variable cost for each type of fencing (for 2 ha area (i.e) for 566m assuming field as square plot) are called for in the rate contract tender and rates have been approved accordingly.

After arriving the maximum eligible length of fencing for subsidy as stated above, the total cost (fixed +variable cost) for the eligible length of solar fencing will then be arrived as follows:

Variable cost for the eligible length of particular type of fencing in the farmer's field = Eligible length (in metre) × Rate approved/metre for variable cost for that type of fencing.

Total cost for the eligible length of fencing in the farmers field = Fixed Cost + Variable cost (as arrived above)

Therefore the eligible subsidy amount is 40 % of the total cost arrived as above. The above methodology shall be followed and the eligible subsidy and the farmer contribution amount shall be arrived and work orders shall be issued on getting the farmer's contribution amount for the total cost accordingly. Also, if the field of the farmer is of irregular shape with zig-zag boundaries and sharp turns additional fencing posts may be required as per field conditions and hence the additional cost, over and above the cost approved shall be borne by the farmer.

Maximum subsidy allowable for 2 ha (566 m) based on the rates approved through rate contract tender for the year 2021-22.

1. Normal Type for all animals excluding elephants (For a length of 566 m)

Description of work	No. of llnes	Fixed Cost (Including GST In Rs.)	Variable Cost (Including GST In Rs.)	Variable cost /m length (Including GST in Rs.)	Total cost of the unit (Inclusive of all in Rs.)	40 % allowable Subsidy for the year 2021-22 (for 566 m) (7)= 40%((3)+((5)*566))
(1)	(2)	(3)	(4)	(5)	(6)	(7)
Total cost for supply and installation of solar fencing unit (inclusive of all)	Without Optional Item					
	5	48,964	1,59,332	282	2,08,296	83,318
	7	48,964	1,77,299	313	2,26,263	90,505
	10	48,964	2,03,915	360	2,52,879	1,01,152
	With Optional Item (Viz., Framed Gate Structure with gate handle and GSM alert)					
	5	75,792	1,59,332	282	2,35,124	94,050
	7	75,792	1,77,299	313	2,53,091	1,01,236
	10	75,792	2,03,915	360	2,79,707	1,11,883

2. Hanging Type for all animals including elephants (For a length of 566 m)

Description of work	No. of lines	Fixed Cost (Including GST in Rs.)	Variable Cost (Including GST in Rs.)	Variable cost /m length for 566 m (Rs.)	Total cost of the unit (Inclusive of all in Rs.)	40 % allowable Subsidy for the year 2021-22 (for 566 m) (7)= 40%((3)+((5)*566))
(1)	(2)	(3)	(4)	(5)	(6)	(7)
Total cost for supply and installation of solar fencing unit (inclusive of all)	Without Optional Item					
	5	65,189	1,98,283	350	2,63,472	1,05,389
	7	65,189	2,16,527	383	2,81,716	1,12,686
	10	65,189	2,43,743	431	3,08,932	1,23,573
	With Optional Item (Viz., Framed Gate Structure with gate handle and GSM alert)					
	5	92,935	1,98,283	350	2,91,218	1,16,487
	7	92,935	2,16,527	383	3,09,462	1,23,785
	10	92,935	2,43,744	431	3,36,679	1,34,672

6. Installation and Completion schedule

- I. The materials for the installation of solar fencing units shall be delivered to the farmer's field within 21 days from the date of issue of work orders. The receipt of materials to the concerned farmer shall be acknowledged by the Assistant Engineer / Junior Engineer of concerned subdivisions.
- II. The Assistant Engineer / Junior Engineer will verify the materials delivered to the farmer's field as per the quotations and technical specifications approved in the rate contract tender. The installation should be completed within 15 days from the date of supply of materials.
- III. The time frame for supply of materials and installation shall be strictly followed. In case of the successful empanelled firm fails to complete the installations within the stipulated time without valid reasons for the same to be given in writing, AED reserves the right to cancel the work orders issued and re allot the quantity by issuing the work order to other successful empanelled firm(s), by getting farmers consent, besides forfeiting the security deposit of the successful empanelled firm who failed to install the system within the timeframe.
- IV. After installation of the solar fencing unit the sub divisional Assistant Engineer/ Junior Engineer along with Assistant Executive Engineer (AE) shall physically verify

the satisfactory functioning of the system and the compliance of system with the technical specification approved in the rate contract tender.

- V. The defects / remarks if any noted during the field verification shall be noted in the **Joint Verification Report** which is to be signed by Sub divisional officials, beneficiary and company representative. The defects noticed during the joint verification shall be rectified within the time frame as mentioned in the Rate contract tender terms and conditions.
- VI. The empanelled firm shall rectify the defects noticed during the joint verification of the sub divisional officials within a period of 15 days. The empanelled firms failing to rectify the defects within 15 days from the date of joint verification will be imposed a penalty of Rs. 100 every day for the next 30 days (1 month). The firm has to remit the penalty amount to AED besides rectifying the defect.
- VII. If the empanelled firms fail to rectify the defects even after 45 days from the date of joint verification, AED has the right to forfeit the security deposit and blacklist the firm and the defects in the system will be rectified through any other company by Agricultural Engineering Department.
- VIII. The cost for the same will be made from defaulter Company. If for genuine reasons, the firm could not carry out the defects within the stipulated time period, the firm shall give a request in writing to the sub divisional office of AED. The acceptance / rejection of the request is at the discretion of AED. The successful empanelled firm should deploy enough man power / working team for completion of the work assigned at various places in Tamil Nadu simultaneously so as to complete the works for all the work orders issued to the successful empanelled firm within the stipulated time.
- IX. In case of any fatality occurs to the human beings/animals by the installed solar fencing units due to usage of energizer of output voltage more than the specified value or due to any technical failure of the system, the firm will be held responsible and the firm has to face the legal action as per the wildlife protection act 1972.

7. Release of Back Ended Subsidy

- I. The Farmers Demand Draft for the total cost of the system will be handed over by the farmer to the concerned company after the materials are delivered to the farmer's field duly verified and certified by sub divisional Assistant Engineer/ Junior Engineer.

- II. After installation of solar fencing unit in the farmers field by the empanelled firm Assistant Engineer (AE)/Junior Engineer (AE) along with Assistant Executive Engineer (AE) and company representative will physically verify the functioning of the system with the technical specifications approved in the rate contract tender.
- III. If any savings found to have been occurred after installation due to less quantity involved or due to site conditions the excess amount shall noted by the sub divisional officials during the verification and the same has to be paid back by the concerned firm to the farmer within 15 days of Joint Verification.
- IV. An acknowledgement has to be obtained from the farmers for the receipt of excess amount and has to be submitted to the subdivision officials. After 15 days from the date of verification if the excess amount has not been paid back to the farmer a penalty of Rs. 100 every day will be levied to the firm upto one month (30 days period). If the excess amount has not been paid to the farmer beyond 45 days from the date of verification, Security deposit of the concerned company will be forfeited and the company will be blacklisted.
- V. The Subsidy amount for the installation of solar powered fencing system will be directly paid to the farmer's account as back ended subsidy by the concerned Assistant Executive Engineer.

PP.No.19.22 Promotion of Post Harvest Technology and Management Machinery Custom Hiring Centres / Value Addition Machinery Facilitation Centre

Modalities for the Establishment of Value Addition Machinery Facilitation Centre

1. For the establishment of Value Addition Machinery Facilitation Centre with subsidy assistance Farmer Groups, Registered Farmers Societies, and Farmer Producer Organizations (FPOs) are eligible.
2. The Farmer Groups shall be registered under Registration of Societies Act 1975, and Farmer Producer Organizations (FPOs) shall be registered under Companies Act 2013.
3. The Farmer Groups, Registered Farmers Societies, and Farmer Producer Organizations (FPOs) should have required infrastructure facilities viz.,

building (owned / rental / leased) with adequate working space and storage space for raw material and finished produce and EB connection (single phase / 3 phase) required for running the machinery.

4. Farmer Groups, Registered Farmers Societies, and Farmer Producer Organizations (FPOs) shall furnish an application to establish their seniority in the office of Assistant Executive Engineer (AE)s of Agricultural Engineering Department in their Revenue Division.
5. The Assistant Engineer(AE)/ Junior Engineer(AE) shall scrutiny the application, inspect the proposed site for the establishment of Value Addition Machinery Facilitation Centre and should submit a report with recommendation remarks to Assistant Executive Engineer (AE)
6. The Agricultural Engineering Department approves the firms which are manufacturing / supplying the Value Addition Machinery to the Farmer Groups, Registered Farmers Societies, and Farmer Producer Organizations (FPOs) for the establishment of Value Addition Machinery facilitation Centre as per the SMAM guidelines issued by Govt of India implemented by Agricultural Engineering Department.
7. The Farmer Groups, Registered Farmers Societies, and Farmer Producer Organizations (FPOs) can select any type, make and model of value addition machinery according to their choice from the empaneled and approved firms by the Agricultural Engineering Department.
8. The Farmer Groups, Registered Farmers Societies, and Farmer Producer Organizations (FPOs) after getting the intimation letter from the Assistant Executive Engineer (AE) of Agricultural Engineering Department can negotiate with the concerned Dealer / manufacturer for reduction in the dealer's / Manufacturer's sale price of the value addition machinery they want to purchase. **The Manufacturer's / dealer's sale price is equal to or lesser than the Maximum Retail Price (MRP) of the manufacturer which is inclusive of the Basic cost of the machinery, Goods and Services Tax (GST) and Transportation cost.**

9. The Farmer Groups, Registered Farmers Societies, and Farmer Producer Organizations (FPOs) after negotiation with the dealer, have to take a Demand Draft (DD) on the negotiated sale price of the value addition machinery only in favour of the Manufacturer value addition machinery approved by the Chief Engineer (AE), Agricultural Engineering Department.
10. A Photo copy of the Demand Draft should be given to the office of Assistant Executive Engineer (AE), Agricultural Engineering Department.
11. The Assistant Executive Engineer (AE) after verifying the application, records and copy of the demand draft furnished by the identified beneficiary of the Value Addition Machinery Facilitation Centre should recommend the application to the concerned Executive Engineer (AE), Agricultural Engineering Department.
12. The Executive Engineer (AE) should issue the Supply order to the concerned Manufacturer/ Dealer with a copy marked to the concerned Assistant Executive Engineer (AE) and to the beneficiary. The Manufacturer/ Dealer has to deliver the value addition machinery to the value addition machinery facilitation Centre.
13. After the delivery of all the Value addition Machinery by the Manufacturer/ Dealer to the Value Addition Machinery facilitation Centre, Assistant Engineer (AE) / Junior Engineer (AE) and the Assistant Executive Engineer (AE) should physically verify all the value addition machinery as per the supply order and ensure that the signature of office bearer of the farmers group is obtained in all the invoices.
14. During the physical verification, it should be ensured that the Maximum Retail Price (MRP) of the product is clearly indicated on the product itself at prominent places and is clearly visible.
15. The Assistant Engineer (AE) / Junior Engineer (AE) and the Assistant Executive Engineer (AE) should also check the Engine Number / Chassis number and Serial number engraved in the value addition machinery and as mentioned in the manufacturer/ dealers invoice during physical verification. If any deviations are found, it should not be recommended for subsidy.

16. The subsidy will be calculated with respect to the negotiated manufacturer/dealer sale price of the Value Addition Machinery. Illustration of the Value Addition Machinery Facilitation Centre subsidy calculation as follows;

Illustration of Value Addition Machinery Facilitation Centre - Subsidy Calculation

Sl.No.	Name of the machinery	Cost of Machinery (in Rupees)	40% subsidy or Maximum permissible subsidy amount for others Annexure - II - C whichever is less as per the SMAM Operational guidelines (in Rupees)	80% subsidy (Column 4*2) (in Rupees)	Effective Subsidy - 50 % subsidy ((Column 5) /0.80) *0.50) (in Rupees)
1	2	3	4	5	6
1	Oil Expeller	2,00,600	80,240	1,60,480	1,00,300
2	Multi Oil Extracting Machine(ECO SS)	2,00,600	80,240	1,60,480	1,00,300
3	Automatic Wooden oil Machine (VOC Make)	2,00,600	80,240	1,60,480	1,00,300
4	Coconut Dehusker	1,40,000	56,000	1,12,000	70,000
5	Flour Mill - 14"	47,250	18,900	37,800	23,625
6	16" Flour Mill-7.5 HP	58,800	23,520	47,040	29,400
7	18" Flour Mill-10 HP	89,250	35,700	71,400	44,625
8	Ragi Cleaner and Destoner (De- Stoner Cum Aspirator)3 HP	82,950	33,180	66,360	41,475
	Total	10,20,050	4,08,020	8,16,040	5,10,025
					Limited to Rs.5.00 Lakh

Note: Value Addition machinery Facilitation Centre is the form of Village level Custom Hiring Centre and as per the minutes of the 19th State Level Sanctioning Committee subsidy assistance provided is 50 % of the total cost.

The total subsidy amount will be the sum of the subsidy amount arrived for each of the value addition machinery as mentioned above and the maximum subsidy assistance is limited to 50 percent subject to a maximum amount of Rs.5.00 Lakh for the maximum project cost of Rs.10.00 Lakhs.

17. The subsidy for the value addition machinery should be credited directly into the Value Addition Machinery Facilitation Centre Owners Bank account after the re verification of all the value addition machinery available in the Centre by the concerned Executive Engineer (AE) along with the concerned Assistant Executive Engineer(AE).
18. The Superintending Engineer (AE)s should make random verification after post sale and verify the availability of the machinery supplied to the Centre besides checking the engine number, chassis number and serial number engraved in all machinery.
19. An agreement should be obtained from the owner of the Value Addition Machinery facilitation Centre on a Rs.30/- Non Judicial Stamp paper by the concerned Assistant Executive Engineer (AE) stating that the owner of the Value Addition Machinery facilitation Centre will not sell the value addition machinery purchased under the Promotion of Value Addition Machinery Facilitation Centre scheme of National Agriculture Development Programme. And also the Engine Number / Chassis Number, Serial Number in the case of machinery should be clearly mentioned in the agreement.
20. Engine number / Chassis number and Serial number engraved in the body of value addition machinery should be mentioned in the agreement obtained from the owner of Value Addition Machinery Facilitation Centre by the concerned Assistant Executive Engineer (AE).
21. The Executive Engineer (AE)s should send the completion report for each Value Addition Machinery Facilitation Centre to the Chief

Engineer(AE)'s office through the concerned Superintending Engineer (AE) along with the copy of the agreement.

22. The location of the Value Addition Machinery Facilitation Centre should be in a place, where farmers can easily access the services. The display board should be placed in the farmers gathering places by the **Value Addition Machinery facilitation Centre**. Due Publicity may be given for the **Value Addition Machinery Facilitation Centre** established with the list of **Value Addition Machinery** available in the respective **Value Addition Machinery Facilitation Centre** and their hire charges.
23. The **Value Addition Facilitation Centre** owners should be guided by the **Departmental Engineers** to have the stock register showing all the items supplied and the owner of **Value Addition Facilitation Centre** should sign for each item along with signature of concerned company representative. Photo for each Item showing the owner, company representative and concerned **Assistant Engineer (AE)/ Junior Engineer (AE)** and **Assistant Executive Engineer (AE)** should be pasted in the machinery stock register. The copy of agreement should be pasted in the machinery stock register. Also Hiring register, accounts register and officers visit register should be maintained in each **Value Addition Machinery facilitation Centre**.
24. Copy of the stock register showing all the **Value Addition Machinery** available in each **Value Addition Machinery facilitation Centre** should be maintained in each sub division.
25. The **Executive Engineer (AE)** should verify the availability of **Value Addition Machinery** in the **Value Addition Machinery Facilitation Centre** in their jurisdiction every month and send a monthly periodical report to the **Chief Engineer (AE)'s office**.

**P.P.No.19.23.Provision of Green House Type Poly Carbonate sheet covered
Solar Drying units to Farmers / Farmers' Groups**

Guidelines for Installation of Solar drying unit (P.P.No.19.23) - 2021-22

1. Introduction:

The farmers have to be sustained in agriculture sector by increasing their net income and thereby improving their livelihood and economic status. The farmer has to process his produces and the shelf life of the agricultural produces should be increased before bringing the produces to the market. Hence, by value addition and by reducing the post-harvest losses of agricultural produce, the livelihood of farmers can be enhanced by providing better financial returns to the farmers.

Drying the agricultural produce in hygienic condition and in lesser time is the biggest challenge faced by farmers. In order to retain more of nutritional value and to have better appearance and thereby enhancing the marketability, drying agricultural produces at optimum temperature and in a shorter amount of time is required. Always there is huge demand for dried produce of crops like Coconut, Chillies, Tomato, Moringa leaves, Maize, Garlic, Ginger, Cloves, Curry leaves, Fruits like Banana, Pine apple, Papaya and Amla. The use of solar power addresses the above challenges faced in drying.

Hence to benefit the farmers and farmers' groups to get more income from the produce and to promote the utilization of solar energy, Poly carbonate sheet covered greenhouse type solar drying units are promoted to the farmers/farmers' groups all over Tamil Nadu for drying various agricultural produce in large quantity with subsidy assistance from 2014 to 2019-20 under National Agriculture Development Programme (NADP) and Sub Mission on Agricultural Mechanization (SMAM). The programme is to be operated with the guidelines of SMAM issued during 2020-21.

2. Beneficiary Identification

1. The beneficiary for the installation of the solar drying unit will be the individual beneficiary's or the identified farmers' group (in case of farmers group as beneficiary).

2. Wide Publicity through press release, pamphlet distribution etc., and propaganda has to be made in the districts through respective District Collector to create awareness to the farmers regarding the scheme and mobilize applications from the beneficiaries.

3. The selection of villages for the execution of the scheme shall also include the areas covered in "Kalagainarin Anaithu Grama Velaan Valarchi Thittam" to ensure an overall agricultural development and self sufficiency in all the villages.

4. Priority registers will be maintained in each sub divisional offices and implementation of the programme is based on the seniority of farmers.

5. The empanelled companies will also be requested to explain the benefit of the scheme by conducting mass campaigns and to get the beneficiary application as the farmer's are free to choose any of the empanelled companies.

6. The identification of farmer / farmer's group and the demand and size of the solar drying unit is to be analyzed based on the requirements of farmer / farmer's group by the districts officials.

3. Eligibility

1. The solar drying units are to be installed to the individual farmer or to the farmer's group who are willing to pay the total cost of the solar drying unit and agree to get the 40% of the total cost as back ended subsidy.

2. The farmer / farmer's group is free to choose any of the company from the list of the empanelled vendors of the department for the supply and installation of solar drying unit in his/their field for the required size i.e. floor area ranging from 400 to 1000 sq.ft

3. The Solar drying unit for 3 different floor areas viz. 400-600 sq.ft, 601-800 sq.ft and 801-1000 sq.ft are to be provided under the scheme to farmer / farmer's group and the rates for the 3 range of floor area are approved.

4. Site Surveying

1. The site for installation of the solar drying unit will be in the individual beneficiary's field or in the land provided by the identified farmers' group for the purpose (in case of farmer's group as beneficiary).

2. The solar drying unit should be designed, fabricated and installed according to the site conditions and as per the requirement of the beneficiary farmer / farmer's group.

3. The physical site surveying should be done by the company representative in the farmer's field in order to prepare the quotations for installing the solar drying unit in the farmer's field.

5. After completion of site survey in the concerned farmer's field who are willing to take Demand Draft, the installing firms have to submit the detailed quotations along with bill of quantity for the approved rates along with schematic layout of drying unit to be installed to the sub divisional office.

6. The quotation and bill of quantity furnished by the companies shall be ascertained by the sub divisional Assistant Engineer/Junior Engineer and Assistant Executive Engineer (AE)'s.

5. Issue of Work Orders

1. The farmer / farmer's group has to take a Demand Draft (DD) for the total cost of solar drying unit in favour of successful empanelled firm, after getting the approval of quotations from the sub divisional officials and hand over the copy of the demand draft for the total cost of the system to the Assistant Executive Engineer (AE) of the concerned sub division.

2. Work orders will be issued from time to time by the sub divisional officers of AED to the empanelled vendor selected by the farmer / farmer's group, based on the receipt of the copy of Demand Draft for the total cost of solar drying unit to be installed for the identified farmer / farmer's group.

3. If the firm/farmer installs the solar drying unit on his own accord without the issue of work order of the sub divisional officer of Agricultural Engineering Department, in that case, the farmer is not eligible to claim the subsidy under the scheme.

7. Subsidy Calculation

The farmer / farmer's group is eligible for the subsidy assistance of 40 % of total cost of system and the eligible subsidy amount will be released to the beneficiary's bank account directly as back ended subsidy after successful installation and verification of the solar drying unit as per technical specifications stipulated by AED and the functioning of the unit by the Assistant Executive Engineer (AE) of the concerned sub division. Initially the beneficiary has to pay the total cost of the solar drying unit to be installed in the form of demand draft in favour of empanelled firm.

As per the SMAM guidelines, the subsidy for installation of solar drying unit is Rs.3.50 lakh for SC/ST, Small, Marginal and woman farmer and Rs.3.00 lakh for other farmers. Based on the minutes of 19th SLSC meeting, it has been approved that the subsidy for the installation of solar drying unit is 40% of total cost of unit.

Accordingly the maximum allowable subsidy for installation of solar drying unit is Rs.3.50 lakh or 40% of the total cost for SC/ST, Small, Marginal and woman farmer and Rs.3.00 lakh or 40% of the total cost for other farmers whichever is less will be adopted.

The rates approved through rate contract tender for the year 2021-22 for supply and installation of solar drying units and optional items viz. trays and trolleys are as given below

Sl. No.	Solar drying unit floor area (in square feet)	Approved Rate per Sq.ft including GST (in Rs.)
1	400-600	765
2	601-800	739
3	801-1000	714

Note: The subsidy is calculated for the respective range of floor area on the prorata- basis

Rates approved for Optional Items viz. Trays and trolleys per set is Rs.2208/- plus 18% GST and the cost details of trays and trolleys for 3 floor areas are

1. For unit with floor area from 400 Sq.ft. upto 600 Sq.ft : 60 Nos for Rs.1,56,326/- including GST
2. For unit with floor area from 601 Sq.ft up to 800 Sq.ft : 90 Nos for Rs.2,34,490/- including GST
3. For unit with floor area from 801 Sq.ft. up to 1000 Sq.ft 120 Nos for Rs.3,12,653/- including GST

Also the Technical Specifications of the optional items viz. Trays and Trolleys are approved as below

- Size of tray: 20"X28"X1.75"
- Material: Perforated sheet SS 304 food grade material (preferably 24 gauge size)
- Size of trolley: 60"X28"X36"
- No. of Tiers in each trolley -2 nos.
- No. of Trays in each tier -3 nos.
- Ground clearance for the lower tier from the ground: 0.3 m
- Number of Trays:
 - i) For 400-600 sq.ft size of Drier – 60 nos of trays with trolleys
 - ii) For 601-800 sq.ft size of Drier – 90 nos of trays with trolleys
 - iii) For 801-1000 sq.ft size of Drier – 120 nos of trays with trolleys

Maximum allowable subsidy based on the rates approved through rate contract tender for the year 2021-22

1. without optional items

Sl. No.	Solar drying unit floor area (in square feet)	Approved Rate per Sq.ft including GST (in Rs.)	Total cost including GST (in Rs)	40% allowable subsidy for the year 2021-22 (in Rs)
1	400	765	3,06,000	1,22,400

2	601	739	4,44,139	1,77,655
3	801	714	5,71,914	2,28,765
4	1000	714	7,14,000	2,85,600

2. with optional items

If the farmer opts for the trays and trolleys, then the total cost for the solar drier shall be worked out by adding the total cost for installation of solar drier for respective floor area (without the optional items) and the cost of the optional item as given above. Then the maximum allowable subsidy shall be arrived by calculating 40% of the total cost subject to maximum of Rs.3.50 lakh for SC/ST, Small, Marginal and woman farmer (special category farmers) and Rs.3.00 lakh for other farmers (general category farmers) respectively.

8. Installation and completion schedule

1. The materials for the installation of solar drying unit shall be delivered to the farmer's field within 15 days from the date of issue of work orders.
2. The receipt of materials to the concerned farmer shall be acknowledged by the Assistant Engineer / Junior Engineer of concerned subdivisions.
3. The Assistant Engineer / Junior Engineer will verify the materials delivered to the farmer's field as per the quotations and technical specifications approved in the rate contract tender.
4. The installation should be completed within 15 days from the date of supply of materials.
5. The time frame for supply of materials shall be strictly followed. In case of the successful empanelled firm fails to complete the installations within the stipulated time without valid reasons for the same to be given in writing, AED reserves the right to cancel the work orders issued and reallocate the quantity by issuing the work order to other successful empanelled firm(s), besides forfeiting the security deposit of the successful empanelled firm who failed to install the unit within the timeframe.

6. After installation of the solar drying unit, the sub divisional Assistant Engineer/ Junior Engineer along with Assistant Executive Engineer (AE) shall physically verify the satisfactory functioning of the unit and compliance of unit will be noted with the technical specification approved in the rate contract tender.

7. The defects noted if any, during the **Joint verification (JV)** shall be noted in the Joint Verification Report and shall be duly signed by Sub divisional officials, beneficiary and company representative.

8. The empanelled firm shall rectify the defects noted during the joint verification by the sub divisional officials within a period of 15 days as mentioned in the Rate contract tender terms and conditions.

9. If the empanelled firm fails to rectify the defects after 15 days of joint verification, then a penalty of Rs. 100 per day for delay of each day will be imposed upto the next 30 days.

10. If the empanelled firms fail to rectify the defects after 45 days from the date of joint verification, AED has the right to forfeit the security deposit and blacklist the firm and the defects in the system will be rectified by AED by alternate arrangements and the cost for the same will be collected from the empanelled firm.

11. If the firm could not carry out the defects within the stipulated time period for any genuine reasons, then the firm shall give a request in writing to the sub divisional AE / JE of AED. The acceptance / rejection of the request is at the discretion of AED.

12. The successful empanelled firm should deploy enough man power / working team for completion of the work assigned at various places in Tamil Nadu simultaneously, so as to complete the works for all the work orders issued to the successful empanelled firm within the stipulated time.

9. Release of back ended subsidy

1. The farmer / farmer's group has to take a Demand Draft (DD) for the total cost of Solar drying unit in favour of the empanelled firm selected by the farmers / farmer's group from the list of empanelled vendors of AED.

2. Work orders will be issued from time to time by the sub divisional officers of AED, after getting the copy of demand draft furnished by the identified beneficiary to the concerned empanelled firm.

3. The Farmer / farmer's group demand draft for the total cost of the system will be handed over by the farmer / farmer's group to the concerned company after the materials are delivered to the farmer / farmer's group field after duly verified and certified by sub divisional Assistant Engineer / Junior Engineer.

4. After verification of the installed solar drying unit in the farmer / farmer's group field, by the Assistant Engineer (AE) / Junior Engineer (AE) along with Assistant Executive Engineer (AE) and company representative, the subsidy amount will be directly paid to the farmer / farmer's group account as back ended subsidy by the sub divisional Assistant Executive Engineer (AE).

5. During joint verification, if it is found that lesser quantity of material is used in the field due to site conditions, the excess amount shall be refunded to the farmer / farmer's group within the stipulated time i.e. within 15 days as noted by the sub divisional officials during the verification.

6. An acknowledgement has to be obtained from the farmer / farmer's groups on receipt of excess amount and has to be submitted to the subdivision officials.

7. If the company fails to repay the excess amount to the farmer / farmer's group within 15 days it will be paid to the farmer / farmer's group from the security deposit of the concerned company.

8. If the excess amount has not been paid to the farmer / farmer's group even after 15 days from the date of verification, then a penalty of Rs.100 per day for upto next 30 days will be levied.

9. If the excess amount has not been paid to the farmer / farmer's group beyond 45 days from the date of verification, security deposit of the concerned company will be forfeited and the company will be blacklisted and also the excess amount paid by the farmer / farmer's group will be returned by AED to the farmer / farmer's group with the penalty amount duly deducting it from the security deposit forfeited from the defaulter firm.

10. The subsidy amount for the installation of solar drying unit will be directly paid to the farmer / farmer's group account as back ended subsidy by the concerned Assistant Executive Engineer.

PP.No.19.24 Establishment of Service Centre for Agriculture Machinery and Solar powered pumpsets

Modalities for the Establishment of Service Centre for Agriculture Machinery and Solar powered pumpsets

1. For the establishment of Service Centre for Agriculture Machinery and Solar powered pumpsets with subsidy assistance Entrepreneurs, Registered Farmers Societies, Farmer Producer Organization (FPO)s and Rural Youth are eligible.
2. The Registered Farmers Societies and Farmer Producer Organizations (FPOs) shall be registered under Registration of Societies' Act 1975 and Rural youth should be registered as an Entrepreneur.
3. The Entrepreneurs, Registered Farmers Societies, Farmer Producer Organization (FPO)s and Rural Youth should have required infrastructure facilities viz., building (owned) with adequate working space for service, EB connection (3 phase) required for running the workshop machinery.
4. The Entrepreneurs, Registered Farmers Societies, Farmer Producer Organization (FPO)s and Rural Youth shall furnish an application to establish their seniority in the office of Assistant Executive Engineer (AE)s of Agricultural Engineering Department in their Revenue Division.

5. The application shall be scrutinized by the Assistant Executive Engineer(AE) and Assistant Engineer(AE)/ Junior Engineer(AE) shall inspect the proposed site for the establishment of Service Centre and submit a report with recommendation remarks.
6. The Entrepreneurs, Registered Farmers Societies, Farmer Producer Organization (FPO)s and Rural Youth possessing own land with EB power connection selected by the District Level Executive Committee of Sub Mission on Agricultural Mechanization alone will be eligible for forming the Agricultural Machinery and Solar powered pumpsets Service Centre.
7. The Entrepreneurs, Registered Farmers Societies, Farmer Producer Organization (FPO)s and Rural Youth can select any workshop machines and other accessories according to their choice, shall prepare a Detailed Project Report (DPR) in consultation with the concerned Assistant Executive Engineer. Once the DPR is approved by the District Level committee of Sub Mission on Agricultural Mechanization, Tender documents are to be prepared for the Purchase of Workshop machines (inclusive of Goods and Service Tax (GST), Transportation and Installation cost) duly following the Tender Procedures/GeM Procedures, by the concerned Assistant Executive Engineer (AE).
8. Tender Documents shall be scrutinized by the Executive Engineer (AE)/ the Superintending Engineer (AE) and if required the documents may be forwarded to Chief Engineer (AE) office for getting approval.
9. Once documents are approved, Tender shall be floated and rates will be finalised based on the Tender procedures by the concerned Executive Engineer (AE)/ the Superintending Engineer (AE) and if required same may be forwarded to the Chief Engineer (AE) for rates finalisation.
10. The finalised rates for workshop machines through Tender will be communicated to the beneficiary. The Entrepreneurs, Registered Farmers Societies, Farmer Producer Organization (FPO)s and Rural Youth shall take Demand Draft(DD) for the full cost of workshop machines in the name of

vendors (Successful Tenderer) and hand over to the concerned Executive Engineer(AE). Demand Draft (DD) Details should be maintained in DD register.

11. After that supply order shall be issued to vendors (Successful Tenderer) by the Executive Engineer(AE) with a copy marked to the concerned Assistant Executive Engineer(AE)
12. Installation of workshops machines shall be adhered based on the Tender conditions. After the installation of workshop machines by vendors (Successful Tenderer) in the place of Entrepreneurs, Registered Farmers Societies, Farmer Producer Organization (FPO)s and Rural Youth, the Assistant Engineer (AE) / Junior Engineer (AE) and the Assistant Executive Engineer (AE) should physically verify all the workshop machines as per the Tender conditions specifications. And ensure that the signature of office bearer of the beneficiary and Vendors is obtained in all the invoices.
13. **After verification, the subsidy amount of 50 % of the project cost subject to the maximum of Rs.4.00 lakh should be credited directly into the Service Centre Owners Bank account as backended subsidy.**
14. An agreement should be obtained from the owner of the Service Centre on a Rs.30/- Non Judicial Stamp paper by the concerned Assistant Executive Engineer (AE) stating that the owner of the Service Centre will not sell the workshop machines purchased under the Establishment Service Centre for agricultural machinery and solar pumpsets scheme of National Agriculture Development Programme. And also the details of workshop machines should be clearly mentioned in the agreement.
15. **The Executive Engineer (AE)s should send the completion report for each service centre through the concerned Superintending Engineer (AE) along with the copy of the agreement.**
16. The location of the service centre should be in a place, where farmers can easily access the services. The display board should be placed in the farmers gathering places by the **Service Centre owners.**

17. The Service Centre owners should be guided by the Departmental Engineers to have the stock register showing all the items supplied. Photo for workshop machines showing the owner and concerned Assistant Engineer (AE)/ Junior Engineer (AE) and Assistant Executive Engineer (AE) should be pasted in the workshop machines stock register. The copy of agreement should be pasted in the machinery stock register. Also service register, accounts register and visitors register should be maintained in each Service Centre.

P.P.No.19.25 Soil Conservation in the catchments of River Valley Projects in Tamil Nadu

Guidelines for the creation of Soil and Water Harvesting structures under River Valley Project (RVP)

The Centrally Sponsored Scheme of River Valley Project is being implemented by Agriculture Engineering Department with an objective to prevent soil loss to reduce siltation of multipurpose reservoirs, prevention of land degradation, and improvement of land capability, improvement of soil moisture regime and promotion of land use to match land capability in interstate catchments of Tamil Nadu.

Soil and water conservation measures such as Blasting Rockout Crops and construction of Stonewall bund, Loose boulders Checkdam with Gabion and Water Harvesting Structures are taken up in the catchment areas. The soil and water conservation measures are taken up with 100% assistance and however, work to individual farmers such as Blasting rockout crops for constructing stone wall bund at farmer's field, etc., are executed with 50% farmer's contribution.

Stone wall bund

Stone wall bunds at farmer's field, etc., are constructed at farmer's field mainly by the removal of rockout crops in the field.

- Stone wall bunds protect the land from heavy rain in years with high rainfall
- Stone wall bunds allow rainwater to seep into the soil and spread more evenly over the land. When rainfall is erratic, the stone wall bunds contribute to conserving more moisture in the soil for longer, which help to alleviate water stress during dry spells.
- They slow down the water runoff and help with building-up a layer of fine soil and manure particles, rich in nutrients.
- Removal of the rockout crops the stones from the field thus increase the area under cultivation, enabling the roots of the crop to penetrate deep into soil.

Site Selection Criteria:

- Stone wall bunds are well suited for small land holding farmers.
- Stone wall bunds shall be constructed at the boundary of the field in case of small holding, for a larger lands it may be built on the boundary where the slope pattern changes, paving way for stabilisation over a period.

Gabion Check dam:

Gabion Check dams are constructed with boulders stacked together compactly within tied wire meshes, across gullies from upstream to downstream, impeding the flow of surface water to reduce the velocity of runoff water in the stream and thereby reduce the soil erosion.

Gabion Check Dams reduce the water velocity of water flowing through the stream / gully. By reducing the velocity of runoff water it helps to,

- Reduce soil erosion.
- Reduce rate of siltation of the water harvesting structures in the lower reaches of the watershed.
- Increase the duration of flow in the stream / gully thus helps to improve the capacity of water harvesting structures created downstream.

- Provide relatively good removal of coarse and medium size sediment from runoff.
- Gabion Check dams are constructed across gullies from upstream to downstream help stabilizing the gully over a period.

Site Selection Criteria:

During selection of locations for construction of Gabion check dams the following principles and priorities are to be followed.

- The location of the structure should be in 'Poramboke' land
- Gabion check dams shall be located where the channel width is relatively low.
- Gabion check dams shall be located where the bed-slope of the channel in upstream of the structure is low.
- Gabion check dams are constructed in such a way that the top level of the Gabion check dam should be the bottom level of the dam in the gully upstream.

The following technical aspects to be considered while constructing Gabion check Dams:

- Boulders must be placed compactly against each other inside the wire mesh so that they do not slide or move under the impact of water.
- Small boulders must be placed in the interior sides while the larger ones must be placed in outer sides.
- Even the smallest boulder should be bigger than the gap in the wire mesh
- The wire mesh must be stretched rigid so that there is no bulging or sagging which over period, affect the structure compactness which in turn leads to the instability of structure.
- The wire used for tying up the wire mesh sections must be of the same gauge or of a thinner gauge plied and twisted together.

Rain Water Harvesting(RWH) structure

Choice of the type of RWH:

The choice of a given type of rainwater harvesting structures in the hilly areas depends upon the gully gradient, width of gully, catchment area, soil type, soil depth, land use, topography, rainfall (amount and distribution), availability of community / poramboke land, suitability of the location to impound more water, etc.

Check dam:

Check dams are constructed across gullies from upstream to downstream, streams for impeding the flow of surface water in the stream and water is retained for a longer duration in the pervious soil. The broad objectives of Check Dams are,

- Ground water recharge.
- It controls the water velocity and reduces soil erosion.
- The stored water improves soil moisture of the adjoining area and improve land fertillity allows percolation to recharge the aquifers...
- Other uses by villagers like bathing, washing, fishing, recreation and also useful for livestock depending on location and potentiality.
- To provide drinking water facilities in the villages along both the sides of the river after monsoon period.
- Check dams provide relatively good removal of coarse and medium size sediment from runoff.

Site Selection Criteria:

The Check Dams will store surface run- off water flowing during monsoon period and also to recharge the ground water. Hence during selection of locations for construction of check dams the following principles and priorities are to be followed:

1. Hydrologically and technically feasible sites may be considered.
2. The location of the structure should be 'poramboke'.
3. The area selected should have gentle slope.

4. The water spread area of one check dam overlapping another may be avoided.
5. The total catchment area of the stream should be normally between 40 to 100 ha. Local situations can, however, be a guiding factor in this regard.
6. Steep or narrow reaches of the gully shall not be selected for locating the Check Dam. The gully portion on the u/s of the structure shall be flat and wide enough to impound maximum storage of water.
7. The Check dams should preferably be located in areas where proper bunds are available.
8. Check dams should not be proposed at turning point and at bends of the gully.
9. There should be at least 50 metre of straight portion on both upstream and downstream side of check dam.

The following technical aspects to be considered while constructing check Dams

1. A Check dam being basically a surplus weir, the design of the structure must take in to consideration of the catchment area that contributes flow in to the gully.
2. The quantity of run-off water decides the length of body wall of the Check Dam. In most of the cases, it will fit to the natural width of the gully, unless they are encroached and narrowed down. Particularly in the case of deep-cut gullies, the length of bodywall shall fit to the gully width and the flow discharge can be worked out by providing sufficient depth of flow over the crest. In shallow gullies, the length can be increased by reducing the depth of flow over the crest. In no case the length of weir shall be less than the gully width. In cases of weir length exceeding the gully width, the depth over crest shall be suitably increased and redesigned.
3. The height of bodywall decides the depth of storage. This should be decided by assessing the depth of gully from the adjoining fields. The storage depth and the maximum flow depth put together shall be within the gully depth below the field level. Otherwise, banks shall be formed sufficiently up to the distance where the flow top level merges with the adjoining field level. This aspect is important to

prevent the flood water entering the adjoining fields and habitations.

4. The structure shall be sufficiently keyed in to the banks to prevent water creeping through the sides. The earthen fill at the structure shall be of homogenous soil and the formation compacted properly.
5. It must be kept in mind that the very purpose of the structure is to store rainwater. Hence, focus should be made for clearing and widening the gully on the upstream and formation of banks in the case of shallow gullies to impound more water. The downstream channel should also be cleared sufficiently to facilitate the quick disposal of the run-off water.
6. Sufficient provisions should be made in the Estimate for clearing the gully on both upstream and downstream of check dam.
7. Longitudinal section and cross section survey should be taken for entire gully length to finalize the No of Check Dams and their location.

General instruction:

1. All the works should be carried out through tenders following the Tender Transparency Act.
2. An Estimate should comprise the following.
 1. Report to accompany, that include GPS particulars, Present Condition of the site, Necessity of the WHS, Mode of Execution, Rate adopted, G.O details etc.
 2. Location Map
 3. Photos showing the Proposed site with GPS details of Latitude, Longitude and Altitude.
 4. Salient Features of the Proposed WHS
 5. FMB and Adangal particulars
 6. Plan showing the Proposed WHS
 7. Elevation & Cross Section of WHS
 8. Catchment Area Map
 9. Water Spread Area Map

10. Longitudinal Section of the Gully
11. Beneficiaries details
12. Details of wells to be influenced with GPS details
13. Capacity Calculations
14. Design
15. Lead cum Quarry Map
16. .Lead Statement
17. Standard Data Sheet.
18. Detailed Estimate
19. Abstract Estimate
20. General Estimate

A name board for all the water harvesting structure works shall be placed at the location of the structure with details of work as shown below.

தமிழ்நாடு அரசு வேளாண்மைப் பொறியியல் துறை	
திட்டத்தின் பெயர்	: தேசிய வேளாண் வளர்ச்சித் திட்டத்தின் கீழ் நதிப்பள்ளத்தாக்குத்திட்டம்.
கிராமம்	:
பணி	:
மதிப்பு	:
செயல்படுத்திய வருடம்	:
ஒப்பந்ததாரர் பெயர்	:

PP.No.19.26 Strengthening of Infrastructure for housing the Agricultural Engineering Department machinery for Custom Hiring to farmers

Guidelines for Strengthening of Infrastructure for housing the Agricultural Engineering Department Machinery for Custom Hiring to farmers

- New Agricultural Machinery Sheds of 40 Nos should be constructed in the land owned by Agricultural Engineering Department.
- The construction work will be carried out by Agricultural Engineering Department for an area of 250 Square meter.
- The construction work will be carried out by adopting the Tamil Nadu Transparency in Tenders Act, 1998 and the TN PWD Schedule of rates for the year 2021-22.
- The new Agricultural Machinery Shed to be constructed should abode all the machinery and implements of the sub divisional office.
- The 'Type Design' approved by the Chief Engineer (AE), Agricultural Engineering Department is to be adhered in all places of construction.
- Any deviation in the type design is to be got approved from the Chief Engineer (AE), Agricultural Engineering Department.
- The project period is one year.
- Design features and materials selected should be resistant to corrosive chemical activity.
- Status register should be maintained by concerned Assistant Executive Engineer (AE) during the construction period and the remarks should be registered by the inspection officer.
- Necessary precaution measures to be maintained in case of fire fighting.
- Necessary provision for free movement of machinery and implements within the shed to be maintained.

**C.SAMAYAMOORTHY
AGRICULTURAL PRODUCTION COMMISSIONER
AND SECRETARY TO GOVERNMENT**

//TRUE COPY//

L.S. Samayamorthy
22/10/21
SECTION OFFICER

22/10/21

