

### **ABSTRACT**

Schemes – Announcements – Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS) - Announcements made by the Hon'ble Minister (Rural Development) on the floor of Tamil Nadu Legislative Assembly on 07.04.2022 – Works under Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS) during the financial year 2022-23 at the total cost of Rs.3,006.09 Crore – Permission accorded – Orders – Issued.

### RURAL DEVELOPMENT AND PANCHAYAT RAJ (CGS.1) DEPARTMENT

G.O.(Ms). No.62

Dated: 20.05.2022 சுபகிருது, வைகாசி 6 திருவள்ளுவர் ஆண்டு 2053

### Read:

- 1. Announcement made by the Hon'ble Minister (RD) on the floor of Assembly on 07.04.2022.
- 2. From the Director of Rural Development and Panchayat Raj, Letter No.22284/2022/MGNREGS-I-1, Dated: 18.04.2022.

### ORDER:

The Hon'ble Minister (Rural Development) while moving demand for Grants for Rural Development and Panchayat Raj Department for the year 2022-2023, has made the following Announcements on the floor of the Legislative Assembly on 07.04.2022:-

- (i) விவசாயிகள், விவசாயப் பொருட்களைச் சந்தைப்படுத்தவும், குக்கிராமங்களில் இருந்து பள்ளிகள் மற்றும் மருத்துவமனைகளைச் சென்றடையவும், 2,750 கி.மீ நீளத்திற்கான ஓரடுக்குக் கப்பிச்சாலைகள், 800 கி.மீ நீளத்திற்கான சிமெண்ட் கான்கிரீட் சாலைகள் மற்றும் 800 கி.மீ நீளத்திற்கு பேவர்பினாக் (Paver Block) சாலைகள் ஆகியவை 1346 கோடி ரூபாய் மதிப்பீட்டில் அமைக்கப்படும்.
- (ii) ஊரகப்பகுதிகளில் வீடுகளிலிருந்து வெளியேறும் கழிவுநீரை மறுசுழற்சி மற்றும் மறுபயன்பாடு செய்து, சுற்றுச் சூழலைப் பாதுகாக்க 350 கி.மீ. நீனத்திற்கு வடிகால்வசதி, 25,500 சமுதாய உறிஞ்சு குழிகள் மற்றும் 1.75 இலட்சம் தனிநபர் உறிஞ்சுகுழிகள் ஒன்றிய மாநில

- நிதிப்பங்களிப்புடன் 431 கோடியே 39 இலட்சம் ரூபாய் மதிப்பீட்டில் மேற்கொள்ளப்படும்.
- (iii) நீர் மற்றும் நில வளத்தை மேம்படுத்தி, மழைநீரின் ஒவ்வொரு துளியையும் சேமித்து, மண் அரிப்பைத் தடுத்து, மண்ணின் ஈரப்பதத்தைக் காத்து, நிலத்தடி நீர்மட்டத்தை உயர்த்திடவும், விவசாயத்திற்கான பாசன வசதியை மேம்படுத்திடவும் 10,000 தடுப்பணைகள், 5,000 பண்ணைக் குட்டைகள், தனி நபர் நிலங்களில் மண்வரப்பு மற்றும் கல்வரப்பு அமைத்தல் போன்ற பணிகள் மகாத்மா காந்தி தேசிய ஊரக வேலை உறுதித் திட்டத்தின் கீழ் ஒன்றிய மாநில நிதிப் பங்களிப்புடன் 683 கோடியே 95 இலட்சம் ரூபாய் மதிப்பீட்டில் மேற்கொள்ளப்படும்.
- (iv) ஊரகப் பகுதிகளை பசுமையாக்கவும் சூழலைப் பாதுகாக்கவும், ஊராட்சி மற்றும் அரசு நிலங்கள், அரசு நிறுவனங்கள், பள்ளிகள், கல்லூரிகள், பொதுப் பூங்காக்கள் மற்றும் ஊரகச் சாலைகளின் இருமருங்கிலும் 69 இலட்சம் மரக்கன்றுகள் 293 கோடியே 95 இலட்சம் ரூபாய் மதிப்பீட்டில் மரக்கன்றுகள் நடப்படும். மழை மற்றும் வெள்ளக் காலங்களில் ஏரிகள் மற்றும் வாய்க்கால்களின் வரப்பினைப் பாதுகாக்கவும், ஊரகப் பகுதிகளில் பனைப் பொருட்கள் சார்ந்த வேலை வாய்ப்பினை பெருக்கவும், 25 இலட்சம் பனை விதைகள் 87 கோடியே 26 இலட்சம் ரூபாய் மதிப்பீட்டில் ஊன்றப்படும்.
- மேம்படும் விவசாயிகளின் வாழ்வாதாரம் (V) ஊரகப்பகுதிகளில் உள்ள வகையில், சிறு/குறு மற்றும் பட்டியலின/பழங்குடியின விவசாயிகளின் நிலத்தின் ஒரு பகுதியில் நாவல், மாதுளை, மா, பலா, சப்போட்டா, எலுமிச்சை போன்ற மரக்கன்றுகள் ஒரு ஊராட்சி ஒன்றியத்திற்கு விவசாயிகள் என்ற வீதத்தில் நிலமேம்பாட்டுப் பணிகளோடு இணைந்து, மரக்கன்றுகள் நடும் பணி, கலைஞரின் அனைத்து கிராம ஒருங்கிணைந்த வேளாண் வளர்ச்சித் திட்டம் மற்றும் மகாத்மா காந்தி தேசிய ஊரக வேலை உறுதித் திட்டம் ஆகியவற்றை ஒருங்கிணைத்து, 8.45 இலட்சம் பழ மதிப்பீட்டில் ரூபாய் கோடியே 51 இலட்சம் 11 மாக்கன்றுகள், மேற்கொள்ளப்படும்.
- (vi) மகாத்மா காந்தி தேசிய ஊரக வேலை உறுதித் திட்டத்தின் கீழ் மகளிர் பங்களிப்பினை உயர்த்தவும், சுய உதவிக் குழுக்களின் வாழ்வாதாரத்தை மேம்படுத்தவும் ஊராட்சி அளவிலான கூட்டமைப்புகளின் மூலம் புதிதாக 388 வட்டார அளவிலான நாற்றங்கால்கள், 3,500 முருங்கை நாற்றங்கால்கள் மற்றும் 1,500 தோட்டக்கலை நாற்றங்கால்கள் ஒன்றிய மாநில நிதிப் பங்களிப்புடன் 92 கோடியே 12 இலட்சம் ரூபாய் மதிப்பீட்டில் ஏற்படுத்தப்படும்.
- (vii) இரும்புச் சத்துக் குறைபாடில்லா தமிழகத்தை உருவாக்கும் நோக்கில் 3,500 புதிய முருங்கை நாற்றங்கால்களில் 21 இலட்சம் முருங்கை நாற்றுகள் வளர்க்கப்பட்டு, 10.50 இலட்சம் மகளிர் சுய உதவிக்

குழுவினருக்கு தலா இரண்டு மரக்கன்றுகள் வீதம் வழங்கப்படும். இவற்றை மகளிர் தமது இல்லங்களில் நட்டுப் பயன் பெறுவர்.

- (Viii) ஊட்டச்சத்து மிக்க உருவாக்கும் சமுதாயத்தை விதமாக ஊரகப் பகுதிகளில் வசிக்கும் ஐந்து வயதிற்குட்பட்ட குழந்தைகள் வ்ழுற்வ கர்ப்பிணிப் பெண்கள் பயன் பெறும் வகையில் சமூக நலத்துறையுடன் ஒருங்கிணைந்து 500 குழந்தை நேய அங்கன்வாடி மையங்கள் கோடியே 85 இலட்சம் ரூபாய் மதிப்பீட்டில் கட்டப்படும். இக்கட்டடங்கள் கட்டுவதில் பழங்குடியினர் அதிகளவில் வசிக்கும் குக்கிராமங்கள் / கிராம ஊராட்சிகளுக்கு முன்னுரிமை வழங்கப்படும்.
- 2. In pursuance of the above announcements, the Director of Rural Development and Panchayat Raj in his letter second read above, has sent necessary proposal along with the Draft Guidelines to Government.
- 3. The Director of Rural Development and Panchayat Raj has stated that all works indicated in the Announcements made by the Hon'ble Minister (Rural Development) are permitted under Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS) and also approved by the Empowered Committee, Ministry of Rural Development, Government of India during the Meeting held on 14.02.2022 and 29.03.2022. As such, the following works may be proposed to undertake under Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS) during the financial year 2022-23.
  - Laying of 2750 KM of Single layer WBM Road (Rural Connectivity) at a cost of Rs.645.98 Crore, 800 KM of Cement Concrete Pavement at a cost of Rs.336.16 Crore and 800 KM of Interlocking Paver Block Pavement at a cost of Rs.363.92 Crore at a total cost of Rs.1346.00 Crore;
  - Construction of 350 km of Cement Concrete Drainage at a cost of Rs.177.98 Crore and Construction of 2,00,500 Soak Pits in rural areas at a total cost of Rs.431.39 Crore;
  - 3. Construction of 10,000 nos. of Check Dams at a cost of Rs.542.00 Crore, construction of 5,000 nos. of Farm Ponds at a cost of Rs.96.50 Crore, 500 Km length of Stone Bunding at a cost of Rs.37.20 Crore and 500 Km length of Earthen Bunding at a cost of Rs.8.25 Crore will be taken up during the financial year 2022-23 at a total cost of Rs.683.95 Crore;
  - Plantation of 69 lakh shade / fruit bearing / native trees at a cost of Rs.293.95 Crore and Plantation of 25 lakh palm saplings at a cost of Rs.87.26 Crore at a total cost of Rs.381.21 Crore;
  - 5. Provision for Pitting and Plantation of 8,45,000 Horticulture Saplings in 20% of Land Holdings of 7,760 Small/Medium and SC/ST Farmers (@ 20 Farmers per Block) at a total cost of Rs.11.51 Crore;
  - Raising of 388 Block Level Nursery at a cost of Rs.26.62 Crore, 3500 Moringa Nursery at a cost of Rs.45.85 Crore and 1500 Horticulture Nursery at a cost of Rs.19.65 Crore at a total cost of Rs.92.12 Crore;

- 7. 21,00,000 Moringa Saplings will be raised in the above 3500 Moringa Nursery and 2 Moringa Saplings per Self Help Group will be given to 10,50,000 SHG Women in rural areas. The SHG women will plant the saplings at their home and get the benefits. (This announcement is devoid of financial commitment)
- 8. 500 Anganwadi Centre Buildings at an unit cost of Rs.11.97 lakhs (Rs.5.00 lakhs under Mahatma Gandhi National Rural Employment Guarantee Scheme, Rs.6.97 lakhs under Anaithu Grama Anna Marumalarhi Thittam-II / District Panchayat/ Panchayat Union / Panchayat General Fund) in convergence with Anaithu Grama Anna Marumalarchi Thittam-II / District Panchayat / Panchayat Union / Panchayat General Fund) at a total cost of Rs.59.85 crores.
- 4. The Director of Rural Development and Panchayat Raj has also sent the details of mode selection of works, Non-Negotiable items, funding pattern for the implementation of works indicated in the Announcements and requested the Government to issue necessary orders to accord permission for undertaking those works under Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS) during the financial year 2022-23.
- 5. The Government have examined the proposal of the Director of Rural Development and Panchayat Raj carefully and decided to accept the same. Accordingly, the following orders are issued:-
  - (I) Permission is accorded to take-up the following works:-
  - (a) Laying of 2750 KM of Single layer WBM Road(Rural Connectivity) at a cost of Rs.645.98 Crore, 800 KM of Cement Concrete Pavement at a cost of Rs.336.16 Crore and 800 KM of Interlocking Paver Block Pavement at a cost of Rs.363.92 Crore shall be taken up under Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS) during the financial year 2022-23 as per the Guidelines in Annexure-I annexed to this order;
  - (b) Construction of 350 km of Cement Concrete Drainage at a cost of Rs.177.98 Crore and Construction of 2,00,500 Soak Pits in rural areas at a cost of Rs.253.41 Crore, shall be taken up under Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS) during the financial year 2022-23 as per the Guidelines in Annexure-II annexed to this order;
  - (c) Construction of 10,000 Check Dams at a cost of Rs.542 Crore, construction of 5,000 nos. of Farm Ponds at a cost of Rs.96.50 Crore, 500 Km length of Stone Bunding at a cost of Rs.37.20 Crore and 500 Km length of Earthen Bunding at a cost of Rs.8.25 Crore shall be taken up under Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS) during the financial year 2022-23 as per the Guidelines in Annexure-III annexed to this order.
  - (d) Plantation of 69 lakh shade / fruit bearing / native trees at a cost of Rs.293.95 Crore and Plantation of 25 lakh palm saplings at a cost of Rs.87.26 Crore shall be taken up under Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS) during the financial year 2022-23 as per the Guidelines in Annexure-IV annexed to this order.

- (e) Provision for Pitting and Plantation of 8,45,000 Horticulture Saplings in 20% Land Holdings of 7,760 Small/Medium and SC/ST Farmers (@ 20 Farmers per Block) at a total cost of Rs.11.51 Crores shall be taken up under Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS) during the financial year 2022-23 as per the Guidelines in Annexure-V annexed to this order.
- (f) Raising of 388 Block Nursery at a cost of Rs.26.62 Crore, 3500 Moringa Nursery at a cost of Rs.45.85 Crore and 1500 Horticulture Nursery at a cost of Rs.19.65 Crore shall be taken up under Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS) during the financial year 2022-23 and in convergence with Anaithu Grama Anna Marumalarchi Thittam-II / District Panchayat / Panchayat Union / Village Panchayat General Fund, as per the Guidelines in Annexure-VI annexed to this order.
- (g) 21,00,000 Moringa Saplings will be raised in the above 3500 Moringa Nursery and 2 Moringa Saplings per SHG will be given to 10,50,000 SHG Women in rural area. The SHG women will plant the saplings at their home and get the benefits. This will be implemented as per the Guidelines in Annexure-VII annexed to this order.
- (h) 500 Anganwadi Centre Buildings at the unit cost of Rs.11.97 lakhs (Rs.5.00 lakhs under MGNREGS, Rs.2.00 lakhs under AGAMT-II and Rs.4.97 lakhs from Panchayat Union General Fund or Panchayat General Fund) at a total cost of Rs.59.85 crores as per the Guidelines in Annexure-VIII annexed to this order.
- (II) The Funding Pattern for the works 5(a) to 5(h) above shall be as follows:-

### Funding pattern

	MGNRE	GS - Fundi	ng Pattern for	the Announ	cements - 2	2022-23		
	Announcement	Unit Cost (Rs. In Lakh)	Amount (Rupees in Crore)	Source of Funding				
SI. No				State Share (Rs. In Crore) (Material 25%)	Central Share (Rs. In Crore)		Convergence/ Devolution from	
					Labour (100%)	Material (75%)	AGAMT-II/ District Panchayat/ Panchayt Union / Panchayat General Fund (Rs. in Crore)	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	
	Network Connectivity	by All Wea	ther Roads				•	
	Single Layer WBM Road- 2,750 Km	23.49	645.98	135.80	102.78	407.40	-	
	CC Road - 800 Km	42.02	336.16	73.93	40.44	221.79	-	
	Paver Block - 800 Km	45.49	363.92	82.52	33.84	247.56	-	
	Sub Total	g.	1,346.06	292.25	177.06	876.75		

6	Block Nursery -388	6.86	26.62	1.03	10.48	3.08	12.03 AGAMT- II/District Panchayat Panchayat Union/ Panchayat General Fur	
	Raising of Nurseries							
5	Horticulture Plantation in Individual Land @ 20 Farmers Block -7,760 -8,45,000 Saplings	-	11.51	0.60	9.10	1.81	-	
	Sub Total		381.21	4.98	361.28	14.95	-	
4	To Plant and Propagate Palm tree - the State tree of Tamil Nadu - 25,00,000	-	87.26	0.44	85.51	1.31	•	
	Avenue Tree Plantation - 20,00,000	-	118.48	3.67	103.78	11.03	<u>-</u>	
	Shades/Timbers/Morin ga/Horticulture Plantation in Community Land - 49,00,000	-	175.47	0.87	171.99	2.61		
	Providing Green cano Nadu at an estimate of	py to Villag Rs. 381.21	es and to Plant Crore	and Propag	gate Palm tr	ee - the State	tree of Tamil	
	Sub Total		683.95	121.63	197.42	364.90		
	Earthern Bunding - 500 Km	1.65	8.25	0.06	8.02	0.17	-	
	Stone Bunding -500 Km	7.44	37.20	0.08	36.87	0.25		
3	Farm Pond - 5000 Nos	1.93	96.50	0.58	94.16	1.76		
	Check Dam -10000 Nos	5.42	542.00	120.91	58.37	362.72	-	
2	Water and Soil Resources Conservation Works							
	Sub Total	, <u></u>	431.39	92.69	60.66	278.04		
	CC Drainage - 350 Km	50.85	177.98	38.10	25.59	114.29	-	
	Community Soakpit- Type3 - 400 Nos	1.41	5.64	1.21	0.81	3.62	-	
	Community Soakpit- Type2- 100 Nos	1.52	1.52	0.35	0.13	1.04	-	
	Community Soakpit- Type1- 25000 Nos	0.145	36.25	7.70	5.46	23.09	-	
	Individual Soak Pit- 175000 Nos	0.12	210.00	45.33	28.67	136.00		

	Moringa Nursery- 3500	1.31	45.85	2.27	9.45	6.83	27.30 AGAMT- II/District Panchayat/ Panchayat Union/ Panchayat General Fund
	Horticulture Nursery- 1500	1.31	19.65	0.97	4.05	2.93	11.70 AGAMT- II/District Panchayat/Panc hayat Union/ Panchayat General Fund
	Sub Total		92.12	4.27	23.98	12.84	51.03
7	Two Moringa Saplings to 10,50,000 SHG Women to Create Anemic Free Society-21,00,000	-	0	0	0	0	0
8	Anganwadi Centres for a Nutrition Rich Society 500 – Nos	11.97	59.85	5.61	2.57	16.82	34.85  AGAMT- II)/District Panchayat/ Panchayat Union/ Panchayat General Fund (Rs.6.97 lakhs per Unit)
	Grand Total		3,006.09	522.03	832.07	1,566.11	85.88

(iii) The mode of selection of works and Non-Negotiable items are as follows :-

### **Work Selection**

- 1. All works will be selected as per the GIS plan prepared for each village panchayat.
- 388 Block Level Nursery, 3500 Moringa Nursery and 1500 Horticulture Nursery will be established in Village Panchayats. Priority will be given to 5201 Village Panchayats selected for the implementation of Anaithu Grama Anna Marumalarchi Thittam-II and Kalaignarin All Village Integrated Agriculture Development Programme (KAVIADP).
- Beneficiary Selection for works like Farm pond, Stone Bunding and Earthern Bunding will be done in consultation with Agriculture/ Agriculture Engineering Department.
- 4. 7760 beneficiary selection/ Species selection for Horticulture Plantation will be done in convergence with Horticulture Department. The authenticity of Small/Marginal and SC/ST Farmers will be duly verified with necessary certificates in consultation with Revenue Department.

- During the Site selection for the construction of Anganwadi Centres, preference will be given to the Tribal Habitations and centres to be constructed will be decided in consultation with ICDS.
- The riding surface of the Cement Concrete Pavement/Paver Block Roads should be laid by taking into account the floor levels of the houses in order to ensure that the surface run-off does not enter into the residential units. Dummy duct with a pipe provision may be provided wherever necessary.
- 7. The Paver Block Road/CC Road should be taken up where houses are available on either side.
- 8. The District Collector should document various process of the Scheme implementation starting from selection of works to completion of works, documenting the works with photographs, video etc.,
- 9. All Individual beneficiary selected for the schemes should be placed in the Gram Sabha & Aadhar number seeded in MIS.
- 10. The Aspirational Districts Virudhunagar and Ramanathapuram as well as the Backward Districts like Sivagangai, Pudukottai, Dharmapuri, Krishnagiri, Ariyalur and Perambalur shall be given maximum possible number of works.

### Non-Negotiable Items:

- 1. Citizen Information Board shall be kept at the work site in 3 X 4 feet with all necessary information as per the framework given by the Government of India vide Ref No: k11023/1/1/2017 MGNREGA (IV), MoRD, Dated 07.04.2017. The cost of Citizen Information Board for community asset works will be fixed at Rs.4,500/- per unit and for Individual Assets Works the cost of Citizen Information Board will be fixed at Rs.3000/ per unit with the size of 2 X 3 feet. The Citizen Information Board with wall writing shall be painted if suitable Wall or Structure is available near the Worksite at Rs.850/-per unit for Individual Asset and Rs.1,000 for Community Assets. The CIB should only be wall painted for the works like Anganwadi. Regarding Individual soak pits, one Citizen Information Board shall be provided for one habitation/cluster. The cost of the Citizen information Board shall be included in the estimate itself.
- Estimate creation, Administrative Sanction and Technical Sanction shall be done in SECURE software except for Convergence/ Devolution Works.
- Geo-Tagging of Assets at all three i.e before, during and after completion should be ensured.
- 4. In Notification No.1385, dated 28.03.2022, MoRD, Government of India have notified the wage rate and the Rural Schedule of Rates has been prepared accordingly for all the estimate preparation. In case of any revision made in Rural Schedule of Rates in future, the same shall be adopted for the works.

In addition to the above, the following shall also be adhered to during the execution of works;

- Resolution should be obtained for in the Gram Sabha for all the Selected Works/Beneficiaries Selected and it should be entered work wise in Register No.2 of Mahatma Gandhi National Rural Employment Guarantee Act of Village Panchayats concerned.
- Based on the site and hydrological conditions, for ensuring stability in the cement concrete Checkdams, steel reinforcement in Body wall, Abutment, Wing wall and Apron portion shall be provided so as to avoid structural failure.
- Photographs shall be taken before execution, during execution and after completion of work.
- 6. The Director of Rural Development and Panchayat Raj is requested to give instructions to the District Collectors to implement the works with the reference to the Guidelines annexed to this Order and send the progress report periodically to Government. The fund release will be done only after getting the release of Central Share.
- 7. This order issues with the concurrence of Finance Department vide its U.O.No.25234/Fin(RD)/2022, dated 20.05.2022.

### (BY ORDER OF THE GOVERNOR)

## P. AMUDHA PRINCIPAL SECRETARY TO GOVERNMENT

To

The Director of Rural Development and Panchayat Raj, Chennai-15.

All District Collectors (except Chennai District).

(Through the DRD&PR, Chennai-15)

All Project Directors, District Rural Development Agencies

(through the Director of Rural Development

and Panchayat Raj, Chennai-15).

### Copy to:

The Chief Minister's Office, Secretariat, Chennai-9.

The Senior Personal Assistant to Hon'ble Minister (Finance & HRM),

Chennai-9.

The Senior Personal Assistant to Hon'ble Minister (Rural Development),

Chennai-9.

The Principal Private Secretary to Chief Secretary

to Government, Chennai-9.

The Principal Private Secretary to Principal Secretary

to Government, Rural Development and Panchavat Rai

Department, Chennai-9.

The Finance (RD) Department, Chennai-9.

The Accountant General, Chennai-18 / The Resident Audit Officer, Chennai-9. The Pay and Accounts Officer (South), Chennai-35. The National Informatics Centre, Secretariat, Chennai-9. Stock file / Spare copy.

//FORWARDED BY ORDER//

SECTION OFFICER.

# Annexure-I G.O.(Ms).No.62, Rural Development and Panchayat Raj (CGS.1) Department, dated 20.05.2022.

### A. Guidelines for Single Layer WBM Road

## Non - PMGSY (Pradhan Mantri Gram Sadak Yojna) Roads to be taken -up:

- Single all-weather motorable connectivity to habitations not eligible under PMGSY, but at a standard that enables up-gradation to PMGSY standard in due course (either due to increase in population and/or because of higher traffic making the road eligible for such up-gradation).
- 2. Inter-habitation and link roads of socio economic importance which are not included in PMGSY Core Network on account of being multiple links.
- 3. It has to be ensured that only earthen/gravel surface roads are taken up for upgrading to single layer WBM standard.
- 4. Roads which are eligible under PMGSY in the ensuing phases may be taken up for single layer WBM standard and subsequent up gradation to BT standard has to be ensured under PMGSY scheme.
- 5. The roads which are connecting the unconnected habitations, inter habitation roads, internal roads of habitations and Farm net roads can be improved upto Grade II WBM layer under MGNREGS and subsequent surface up gradation is to be taken up under any of the suitable scheme.

Under PMGSY, roads can be constructed only up-to an important location in the habitation which is normally Village Panchayat (VP), Govt. School or community facility. "The remaining part of the road and other streets within the habitation may be taken up under this programme including side drains.

The roads that connect unconnected habitations, inter habitation roads, internal roads of habitations and Farm net roads can be improved upto Grade II WBM layer under Rural connectivity category of MGNREGS. The roads thus improved upto Grade II WBM layer may be improved upto BT standard in PMGSY or any other state schemes in the subsequent years.

### **Selection of Roads:**

The following Guiding Principles and Selection Procedure shall be adopted for the selection of roads under MGNREGS:

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- 1. All roads available in the Village Panchayat including roads connecting unconnected habitations, inter habitation roads, internal roads of habitations and Farm net roads shall be identified for every village Panchayat and should be approved from Grama Sabha.
- 2. The roads under Rural Connectivity shall be selected from the approved roads list by the Grama Sabhas of every Village Panchayats.
- 3. Priority shall be given to all unconnected habitations having less than 500 populations based on 2011 census as per PMGSY –I core network.
- 4. Only New Connectivity would be provided under this Scheme and not Upgradation except gravel surface roads having no crust.
- 5. This Scheme would cover only for Village Panchayat Roads (VPR) and Panchayat Union Roads (PUR).
- 6. Priority shall be given to the Village Panchayats selected for the implementation of Anaithu Grama Anna Marumalarchi Thittam-II (AGAMT-II)
- 7. The priority gradation of the roads would be fixed by the Gram Sabha while the desired surface / standards of these roads (based on traffic and local conditions) will be fixed by the technical personnel responsible for constructing the roads in consultation with State Rural Road Development Agency(SRRDA)/DRDA, as the case may be.
- 8. Unsealed gravel roads may be provided with additional surface gravel over and above the thicknesses of existing gravel base as per the design charts specified in IRC SP 72-2015(Revision).
- Roads connecting unconnected habitations, Farm net roads and intra habitation/inter habitation and link roads would be executed by the concerned Gram Panchayat.
- 10. Routine maintenance and funding thereof, would be the responsibility of the Gram Panchayats. The Funds under 15<sup>th</sup> Finance Commission and other State Grants may be used for this purpose.
- 11.Non-PMGSY rural road works that are to be taken-up as a MGNREGS work are likely to be more in number, but smaller in size (less than 2 km in length) and spatially distributed. Hence, more

technical care and diligence are required to monitor planning, execution and maintenance of these roads.

- 12. Technical supervision and Standard Operating Procedure(SOP) of PMGSY with regard to quality assurance and monitoring need to be clearly adhered to ensure durability of the roads to be taken-up under MGNREGS.
- 13. Construction of road on the same stretch on which road construction has been carried out earlier shall not be taken up under MGNREGS for at least 5 years in case of gravel/ WBM roads. The authority giving Technical Sanction (TS) shall verify and certify the same in TS document.

### **B.** Guidelines for Paver Block

### **Work Selection:**

- Interlocking Paver block pavement shall be proposed under MGNREGS in the Street / Lanes of Village Panchayats wherein allocation under 15<sup>th</sup> Finance Commission / State Finance Commission Grant is less and specifically streets / lanes / roads which give access to SC/ST/Hilly habitations, should be given first priority.
- 2) Priority shall be given to the Village Panchayats selected for the implementation of AnaithuGrama Anna Marumalarchi Thittam-II (AGAMT-II).
- 3) Only those street and lanes which have residential units on both sides of the pavement should be selected.
- 4) Street and lanes in newly developed layouts should not be selected until the lands of common areas are transferred to the Village panchayats.
- 5) Street and lanes in newly developed layouts /newly formed streets with few houses or scattered houses should not be selected.
- 6) Street and lanes in low-lying areas prone to water logging during rainy seasons should not be selected.
- 7) The width of street and Lanes taken-up should preferably be not more than 3.00m in width.
- 8) The site selected should be inspected both by Block Development Officer (VPs) and Assistant Engineer/Block Engineer.

9) Deliberately splitting-up of a single work into two or more individual works to avoid higher level Administrative and Technical Scrutiny should never be resorted to. Any such instance will lead to severe disciplinary action.

### **Technical Specifications for execution of works**

- 1. Under Exceptional circumstances and wherever it is warranted, more than 3m width of Interlocking paver block may be taken-up based on the vehicular traffic and necessity and IRC SP: 63 2004 "Guidelines for the use of Interlocking Concrete Block Pavement" should be strictly adopted for pavement design.
- 2. Existing Surface surface should be cleaned properly, sectioned, levelled and compacted properly. In case of poor/loose soil where CBR is less than 4%, the existing surface should be strengthened adequately.
- 3. Side Wall The edges of the pavement should be provided with kerb wall (or) core wall using Cement Concrete mix in the ratio 1:3:6 for 15cm thickness with a foundation depth of 30cm. The construction of core wall should be completed before laying of sand.
- 4. Cross-drainage provision must be given so as to avoid water logging on both sides of the pavement. The Cross drainage structures essentially required for these street/lanes shall be constructed and provisions may be incorporated in the estimates prepared under MGNREGS in the FY 2022-23
- 5. Bedding course A GSB layer of 150mm thickness shall be laid uniformly and compacted with proper level and 2% camber should be maintained throughout the surface.
- 6. Surface Course/Paver Block Paver blocks of 60mm thickness shall be laid uniformly over the well compacted GSB layer. The "W" shaped block or "H" shaped block/Hexagon block may be used for the construction of paver blocks.









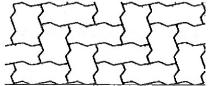
W Shaped Blocks

H Shaped Blocks

Hexagon Shaped Blocks

7. For the pavement to perform satisfactorily, it is necessary that the lower layers are profiled to proper level and 2% of camber and finish and that the bedding GSB layer is of uniform thickness, throughout the surface.

- 8. Varying thickness of GSB layer ultimately results in uneven surface of the pavement.
- 9. The grading and quality of GSB is very important for the pavement to perform satisfactorily.
- 10. Joints between blocks should be filled by fine sand. Normally, the bottom 20 to 30 mm of the joint gets filled with sand bedding, whereas, the remainder space has to be filled with sand by brooming it from the top.
- 11. Laying of Paver Block should commence from the edge strip and proceed towards the inner side.
- 12. Pattern for paving blocks may be of herringbone/stretcher type. The joints between stretcher bond shall be staggered by about half the length of the stretcher.





Herringbone

Stretcher

- 13. The compressive strength of the Cement Concrete Paver block should be minimum of M30 Grade. The paver blocks should be tested before commencing the work and test certificate shall be kept in the work file/Case record for each work. The width of joint shall be between 2mm and 4mm.
- 14. Dummy duct with pipe provision may be provided wherever necessary Cross-drainage provision must be given so as to avoid water logging on both sides of the pavement. The Cross drainage structures essentially required for these street/lanes shall be constructed and provisions may be incorporated in the estimates prepared under MGNREGS in the FY 2022-23

### C. Guidelines for Cement Concrete Road

### **Work Selection:**

 Cement Concrete pavement shall be proposed under MGNREGS in the Street/Lanes of the Village Panchayats wherein allocation under 15<sup>th</sup> Finance Commission/State Finance Commission Grant is less and specifically streets/lanes/roads which give access to SC/ST/Hilly habitations, should be given first priority.

- 2. Priority shall be given to the Village Panchayats selected for the implementation of Anaithu Grama Anna Marumalarchi Thittam-II (AGAMT-II).
- 3. Only those streets and lanes which have residential units on both sides of the pavement should be selected.
- 4. Street and lanes in newly developed layouts should not be selected until the lands of common areas are transferred to the Village panchayats.
- 5. Street and lanes in newly developed layouts /newly formed streets with fewer houses should not be selected.
- 6. Streets and lanes in low-lying areas prone to water logging during rainy seasons should be selected.
- 7. The width of streets/lanes taken-up should preferably be not more than 3.00m in width.
- 8. The site selected should be inspected both by Block Development Officer and Assistant Engineer/Block Engineer.

Deliberately splitting-up of a single work into two or more individual works to avoid higher level Administrative and Technical Scrutiny should never be resorted to. Any such instance will lead to severe disciplinary action.

### **Technical Specifications for execution of works:**

- Under Exceptional circumstances and wherever it is warranted, more than 3m width of Cement Concrete Pavement may be taken up based on the vehicular traffic and necessity and IRC SP: 62 – 2004 "Design and Construction of Cement Concrete Pavement for Low Volume Roads" should be strictly adopted for pavement design.
- 2. Existing surface should be cleaned properly, sectioned, levelled and compacted properly. In case of poor/loose soil where CBR is less than 4%, the existing surface should be strengthened adequately.
- The riding surface of the Cement Concrete pavement should be laid by taking into account of the floor levels of the houses in order to ensure that the surface run-off does not enter into the residential units.
- 4. Sand for filling may be substituted with M-Sand wherever river sand is not available.
- Both sides of the Cement Concrete pavement should be filled up with unscreened gravel as this avoids stagnation of water on both sides and prevents breaking of edges apart from preventing

skidding of two-wheelers and pedestrians. Gentle camber (2%) may be provided so that the water may drain easily.

- Cross-drainage provision must be given so as to avoid water logging on both sides of the pavement. The Cross drainage structures essentially required for these street/lanes shall be constructed and provisions may be incorporated in the estimates prepared under MGNREGS in the FY 2022-23.
- 7. Dummy duct with pipe provision may be provided wherever necessary. Expansion joints should be provided at an interval of about 5m with bituminous pad.

P. AMUDHA
PRINCIPAL SECRETARY TO GOVERNMENT

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SECTION OFFICER.

# Annexure-II G.O.(Ms).No.62, Rural Development and Panchayat Raj (CGS.1) Department, dated 20.05.2022.

### A. Guidelines for Cement Concrete Drainage

### **General Instructions:**

- Streets where grey water is stagnating and causing nuisance to public shall be taken.
- Streets with comparatively more number of households and without space for providing soak pits at individual household level, should be given priority.
- Sewage water from households should never get mixed with the grey water that is let out into the street drain.
- The drain constructed should end at a proper disposal point so as to drain out the collected grey water.
- Based on the space availability, at the end point of disposal, either Horizontal filter soak pit or Vertical filter soak pit shall be constructed. The filtered grey water can be used for irrigation purposes.
- The drain should have proper bed slope.
- The size of the drain should be designed properly to cater the quantity of grey water generated in the selected area.

### **Work Selection**

- Priority shall be given to the Village Panchayats selected for the implementation of Anaithu Grama Anna Marumalarchi Thittam-II ( AGAMT-II)
- Drain shall be constructed along with Paver Block/CC Road based on the quantity of grey water generated in the selected area.
- Selection of sites shall be based on descending order of population.

## B. Guidelines for Individual and Community Soak Pits Selection Procedure

- Model 1 Individual Household Soak Pit
- Model 2 Common Soak Pit (Can be located at Public Fountains, Hand Pumps, OHTs etc.,)

- Model 3 Horizontal Soak Pit (Suitable at locations where the Ground water table is high)
- Model 4 Vertical Soak Pit (Suitable at locations where the Ground water table is low)
- 1. Priority shall be given to the Village Panchayats selected for the implementation of Anaithu Grama Anna Marumalarchi Thittam-II (AGAMT-II)
- 2. Other than Mission AGAMT-II Villages, priority shall be given to villages where the quantum of liquid waste generated is more and stagnation of grey water is rampant.
- 3. The nature of soil at site chosen should be of permeable nature.
- 4. Rocky stratum should be avoided.
- 5. The soak pits may not be taken up in the flood prone areas or where the groundwater table is high.

### Technical quidelines for the construction of soak pits

### **Construction Procedure**

The liquid waste management technologies should be environmental friendly, low cost, affordable and manageable at village level. If grey water is managed at source by each household, it becomes a more appropriate solution and after exploring many possibilities, finally it is decided to provide a soak pit in each household. The soak pit proposed not only prevents water stagnation on the streets but also acts as a Water Harvesting Structure.

### Construction Methodology

In **Individual soak pit**, the household grey water from the bathroom and the kitchen should be collected through inlet pipe to the inspection chamber where the grey water is screened and the water is then led to the Soak Pit where the water passes through the filter media and soaks to the ground.

In **community soak pit**, the grey water from the public fountain, hand pump, OHT etc., should be collected from the platform and filtered in the inspection chamber to screen the floating material and then led into the soak pit where the water passes through the filter media and soaks to the ground.

### **Individual Soak Pit**

- 1. The grey water from the Kitchen and Bathroom should be collected through inlet pipe to the inspection chamber ensuring proper gradient.
- 2. The Inspection chamber of size 0.45m X 0.45m X 0.45m is constructed so that the debris collected through the inlet pipe along with the sullage water may be allowed to settle and the filtered water will pass through the outlet pipe of the inspection chamber to the soak pit.
- 3. In addition gratings to be provided at the mouth of the outlet pipe in the Inspection chamber to screen the floating materials.
- 4. The soak pit to be excavated shall be of size 1.20m X 1.80m depth.
- 5. After excavation 225mm size ISS metal are dumped up to 0.45m depth followed by 65mm size ISS metal to a depth of 0.45m.
- 6. A cement tub with cover of size 0.60m diameter and 0.90m height is placed in the center of the pit above the 65mm size metal with 25mm to 50mm diameter holes in the top circumference below the level of inlet pipe and filter media to be provided with 20mm metal all round the cement tub.
- 7. The tub holes are made to drain the excess water from the tub into the filter media and thereby to the surrounding ground.
- 8. The cement tub is provided so that any small waste solid materials drained from the bath and kitchen can be silted in the tub and due to provision of holes on the top surface of the tub, only the grey water is let out to the filter media which prevents the clogging of the soak pits.
- 9. The overall gradient should be maintained for proper disposal of liquid waste to the soak pit. A Platform of size 1.50mx1.50m shall be constructed with cement concrete of 1:4:8 mix, wherever the washing of clothes and kitchen utensils are done in outside area. A kerb wall of size 11cm x 7.50cm height using Brick work 1:5 is constructed all around the platform. Over that, plastering with cement mortar 1:5 mix may be applied. Level should be maintained for ensuring free flow of water from platform to chamber and then to the Soak Pit.

- 10. The joints of the pipe, chamber and soak pit should be leak proof.
- 11. Over the top of metal layer at ground level in soak pit, cement bag sheet shall be placed before filling with earth.

### **Community Soak Pits:**

- 1. The Inspection chamber of size 0.45m X 0.45m X 0.45m is constructed at the outlet of the platform, so that the debris collected with the grey water may be allowed to settle and the filtered water will pass through the outlet pipe of the inspection chamber to the soak pit.
- In addition gratings to be provided at the mouth of the outlet pipe in the Inspection chamber to screen the floating materials.
- 3. The soak pit to be excavated is of size 1.50m X 1.50m X 1.80m depth
- 4. After excavation 225mm size ISS metal are dumped up to 0.45m depth followed by 65mm size ISS metal to a depth of 0.45m
- 5. A cement tub with cover of size 0.60m diameter and 0.90m height is placed in the center of the pit above the 65mm size metal with 25mm to 50mm diameter holes in the top circumference below the level of inlet pipe and filter media to be provided with 20mm metal all around the cement tub.
- 6. A small circular groove may be provided for holding pots in the platform in public fountain and hand pump.
- 7. The above Platform of size 1.50mx1.50m shall be constructed with cement concrete of 1:4:8 mix, in the water logging area. A kerb wall of size 11cm x 7.50cm height using Brick work 1:5 is constructed around the platform and plastering with cement mortar 1:5 mix may be applied. Level should be maintained for free flow of water from platform to chamber and then to soak pit.
- 8. The joints of the pipe, chamber and soak pit should be leak proof.
- 9. Over the top of metal layer at ground level in soak pit, a cement bag sheet shall be placed before filling with earth.
- 10. According to the prevailing Ground Water Table level, either Horizontal filter soak pits or Vertical filter soak pits shall be adopted, wherein the sullage water will be collected from all households in the locality through drainage and let into the soak pit.
- 11. In the case of horizontal filter soak pit, cleansed water from the soak pit can be used for watering the crops.

- 12. As far as Vertical filter soak pits are concerned, it should be strictly ensured that sewage water does not get mixed with sullage collected from the households, as there are possibilities for traces of E-Coli bacteria in sewage water, generally.
- 13. In the case of vertical filter soak pit, cleansed water from the soak pit will be let into the ground for the purpose of recharge of Ground water table. Hence, mixing of sewage water with sullage will lead to Ground water contamination and so, utmost care and supervision are necessary.

P. AMUDHA
PRINCIPAL SECRETARY TO GOVERNMENT

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SECTION OFFICER

### **Annexure-III**

## G.O.(Ms).No.62, Rural Development and Panchayat Raj (CGS.1) Department, dated 20.05.2022.

### A. Draft Guidelines for the execution of Check dam

### Introduction

A check dam is a structure constructed across a stream, channel or waterway to store the water there by reducing the flow velocity of water and also prevent soil erosion. The construction of check dam is an old method of storage of running water in a particular place. Three types of Check Dam namely Cement concrete Check Dam, Boulder Check Dam and Gabion Check Dam. One Cement Concrete Check dam adopted in this proposal.

### Importance of the construction of check Dam

A check dam is a barrier placed in the flow path of a passing waterway such as a channel, stream etc.., which helps to collect water in that particular place. This storage of water increases infiltration of surface water through rainfall to groundwater and also reduce the effect of erosion while trapping transported sediments and preventing downstream transport.

Our state depends largely upon monsoon for its Water Resources. The normal annual rainfall of the state is about 945 mm of which 48% is through the North East monsoon and 32% through the South West monsoon. Since the state is entirely dependent on rains for storage and recharging of its water resources, monsoon failures during last year had led to water scarcity and severe drought.

Also, the seasonal availability of the rainfall in the state shows a geographical variation. Moreover heavy rainfall in short spells during monsoons makes the problem more serious to our rain fed agriculture resulting in removal of fertile surface soil, thereby leading to low water holding capacity and depleted fertility status of the lands which in turn would result in poor crop production. Taking into account of the importance of rainwater conservation and ground water recharge, it is the right time to look upon means to utilize a part of the surplus surface runoff flowing down to the sea through construction of Check Dams.

Check Dams are constructed in a plain area with the Ridge to Valley approach. Under MGNREGS, all the works are now being implemented by Village Panchayat as Programme Implementing Agency. Under MGNREGS, all Natural Resource Management Works including construction of Check Dams can be undertaken in forest areas either by Forest Department as Programme Implementing Agency using MGNREGS workers or by RD&PR

Department after obtaining No Objection Certificate from Forest Department.

### Objective:

Check dams are constructed across gullies/channels from upstream to downstream, streams for impeding the flow of surface water in the stream / channel 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 fertility 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.

## Types of Check Dams taken in MGNREGS:

The following check dam is proposed to be constructed under MGNREGS 2022-23, based on the technical standards indicated in the SAMARTHYA Technical Training Manual issued by Ministry of Rural Development, Government of India.

Concrete check dam –in plain areas

### Cement Concrete Check Dams

Cement Concrete check dams are highly effective practice to reduce flow velocities in channels and waterways in plain areas. Moreover, the dams themselves are simple to construct and do not rely on advanced technologies, thereby they can be applied in more rural and less advanced communities. They can be used not only to slow down flow of velocity but also to distribute flows across a channel to avoid preferential paths and guide flows toward vegetation.

### 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:

- The works identified and approved by the Grama Sabha shall be taken up for preparation of DPR on priority basis.
- Hydrological and technically feasible sites may be considered in consultation with Central Ground Water Board officials and Local Farmers views may also taken in to consideration. The main emphasis shall be focused on selection of the site for the proper use of water through people's participation.
- · Local need and demand for irrigation water
- The sites for construction of Check dams shall be selected after detailed survey and field investigations.
- The site selected for check dam should have sufficient thickness of permeable soil or weathered material to facilitate recharge of stored water within a short span of time.
- The area selected should have gentle slope.
- The water spread area of one check dam overlapping another may be avoided.
- 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.
- The rainfall in the catchment should be preferably less than 1000 mm/annum.
- The stream bed should be 5 to 15m wide and at least 1 m deep.
- The downstream side of the bund should not be prone to water logging.
- The downstream area of the Check Dam should have irrigable land under well irrigation.
- The Check dams should preferably be located in areas where proper bunds are available.

### Planning:

 Site for the Check Dams should be identified in consultation with Water Resources Department and State and Central Ground Water Boards to ensure that Check Dams are constructed at appropriate site/slope/order.

- The District Irrigation Plan (DIP) is prepared as per the guidelines issued in the new Master Circular for the year 2021-22, which supersedes the earlier guidelines issued by the MoRD, Government of India and also as per SAMARTHYA Technical Training Manual issued by MoRD, GoI and the book on brief description on permissible works under MGNREGS issued by MoRD, GoI.
- The Annual Action Plan / Labour Budget for MGNREGS is duly incorporated in the DIP in which 65% of the expenditure under MGNREGS is on Natural Resource Management works for the year 2021-22, in the 200 over exploited and critical blocks.
- The District Irrigation Plan (DIP) has been prepared after inclusion of Mission Water Conservation works and handed over to Tamil Nadu Watershed Development Agency (TAWDEVA) for preparation of State Irrigation Plan (SIP).
- The Strategic Action Plan (SAP) for seven years for the MGNREGS component has been worked out from 2016-17 to 2022-23, incorporating the Water Conservation works as per the operational guidelines of Mission Water Conservation (MWC), for inclusion in the State Irrigation Plan (SIP).
- As per the Master Circular issued by MoRD, Government of India, the 60:40 ratio in Wage and Labour is maintained at District level for all the works planned to be implemented by the Village Panchayat and not at Village Panchayat level.
- The works identified and approved by the Grama Sabha shall be taken up for preparation of DPR on priority basis.

## Construction methodology and Design:

- The check dam shall be constructed using cement concrete.
- The length of check dam will be fixed as per available stream width or upon known discharge quantity.
- Minimum free board considered over maximum water level to be 0.3m.
- The structure may be designed based on the 10 years of rainfall data and maximum flood levels.

- The Depth of foundation will be fixed where hard stratum is available or below maximum scour level.
- The Flexible / Rigid apron shall be provided on the downstream side of the check dam.
- Generally no aprons are required on the upstream side of the weir.
   However, it is desirable to provide puddle clay apron to control excessive seepage below the dam wall.
- Length of the wing walls must be enough to completely encase the stream/ canal bund. Normally, the upstream and downstream side wing wall may be splayed generally at 1 in 3 and 1 in 5 respectively.
- Surplus arrangement should be made
- The newly constructed structure should not have any adverse impact on the hydrological efficacy of the existing, ongoing and future major, medium, minor (flow) irrigation and minor (lift) irrigation projects.

### Institutional Arrangement and Monitoring Mechanism:

- For selection of site, a committee consisting of AE, BDO (V.P) and one official from TAWDEVA and these committee shall inspect every site and select the location of check dam and type of check dam according to the site condition.
- For selection of the suitable site Water Delineation Map / Watershed Atlas available with TAWDEVA officials / WDT members, shall be used as a tool.
- Technical guidance may be obtained from TAWDEVA in the District.
- All the work site should have MGNREGS Work File (Checklist /Contents) as per the instructions of GoI, vide ref No.J-1101017 /6/2016 -MGNREGA- VII (Part) MORD, Dt:19.07.17.

# B. Guidelines for the provision of Farm Ponds on lands belonging to SC/ST, Small and Marginal Farmers and other categories of farmers approved under MGNREGS

### 1. Introduction:

The National Rural Employment Guarantee Act, 2005 envisages "Provision of irrigation facility, horticulture plantation and land development facilities on the lands owned by households belonging to the

Scheduled Castes and Scheduled Tribes or below poverty line families or to beneficiaries of land reforms or to the beneficiaries under the Indira Awaas Yojana of Government of India or that of the Small Farmers or Marginal Farmers as defined in the Agriculture Department waiver and Department Relief Scheme, 2008" ( Paragraph 1 (iv) of Schedule I).

Section 27 (1) of NREGA Act also envisages taking up of land development activities on the lands of SCs and STs Households, small and marginal farmers.

### 2. Objectives:

- 1. Providing farm ponds on individual farmer's lands to help the farmers to mitigate the shortage of water for crops during critical periods.
- 2. To harvest runoff from local catchments.
- 3. Enhancement the percolation effect through these structures.

### 3. Scope of operation:

It has been proposed to construct around 5,000 Farm Ponds on the lands of individual farmers in all the 37 Districts.

### 4. General Conditions:

The following general and technical conditions are to be fulfilled while executing the work on individual lands under MGNREGS.

- Digging of farm ponds shall be a predominately 100% Labour oriented work. There shall be no material component under this category.
- 2. The individual land owner shall be a job card holder and shall also work on the Lands belonging to SC / ST, Small and Marginal Farmers etc.
- The projects undertaken on lands belonging to the individual farmers in a Village Panchayat shall be approved by the Gram Sabha and shall form part of the annual shelf of projects.
- 4. No contractor or machinery shall be used in the execution of the works.

### 5. Implementation:

a) The details of lands on which farm ponds are to be provided and the identification of the farmers shall be done by the Assistant Agricultural Officer / Agricultural Officer concerned (Agriculture Department) and the list shall be communicated to the Block

- Development Officer (Village Panchayat), Rural Development and Panchayat Raj Department.
- b) Village Panchayat wise detailed action plan shall be prepared by the Block Development Officer (Village Panahayats) in consultation with the Agriculture Department and shall be got approved by the Gram Sabha.
- c) The estimation regarding the requirement of labourers for each of the individual farm ponds shall be assessed by the Overseer and details should be furnished to the Village Panchayat president through the Block Development Officer (Village Panchayats).
- d) The proposal for works along with Gram Sabha Resolution and technical approval by the Assistant Engineer (RD) shall be submitted to the District Collector / DPC through the Project Director, DRDA.
- e) The District Collector / DPC shall accorded the Administrative Sanction.
- f) The work shall be executed by the Village Panchayat.
- g) The implementation of the work shall be supervised and monitored by an Executing Committee consisting of
  - 1. Assistant Engineer (Agricultural Engineering Department)
  - Overseer / Assistant Engineer (Rural Development Department)\
  - Assistant Agricultural Officer / Agricultural Officer concerned. (Agriculture Department)

### 6. Execution of work:

- 1. e-NMR will be issued for all work.
- 2. Pre-marking shall be done by the Overseer of Rural Development Department in the presence of the Executing Committee Members and certified by them.
- 3. Measurement of works for the purpose of weekly payment of wages to workers shall be done by the Overseer of Rural Development Department. Based on the quantum of work arrived at by the Overseer and certified by the Union Overseer, the wage shall be disbursed to individual MGNREGS workers.

4. On completion of each of the farm ponds, the measurement and check measurement shall be undertaken by the competent technical persons as laid down in G.O. (Ms) No.111, Rural Development & Panchayat Raj (PR-1) Department, dated.21.08.2018 which is reproduced as below:

SI. No.	Value of work	Measurement authority	Check Measurement authority		
1	Bill of value not more than rupees 2 lakh	Overseer	Block Engineer / Assistant Engineer		
2	Bills of value more than rupees 2 lakh	Block Engineer / Assistant Engineer	Assistant Executive Engineer		

- 5. The Completion report of each of the farm pond work shall be signed by all the Members of the Executing Committee as mentioned above to ensure satisfactory completion of the work.
- Processing of bills and issue of fund release order shall be done by the Block Development Officer (Village Panchayats).

## 7. Technicalities to be followed in the selection of Farm Ponds:

### a) <u>Site selection</u>

- 1. A farm pond should be made within the farm land of the individual.
- The site should preferably have an impermeable underground stratum. Otherwise, the water collected in the farm pond will immediately percolate down and no water will be available for protective irrigation, defeating the very purpose of the farm pond.
- 3. The site where the farm pond is built should not have a slope more than 2%. If the slope is higher, water tends to collect on one end of the farm pond, while other portions remain empty.
- 4. The catchment area of the site where the farm pond is to be located should not be more than 5 ha.
- If there is well or a dip on the farm, the farm pond should be made upstream of it so that the well may benefit from recharge from the pond.

### b) Capacity of Farm ponds:

- The capacity of the farm pond should be determined on the basis of the rainwater that is estimated to flow from the farm and based on the area to be irrigated and quantum of water required for the crops to be irrigated.
- 2. It is preferable to construct deeper farm ponds than shallow ponds so as to minimize the use of farm land and also to minimize the evaporation loss.

## C. Guidelines for the execution of Earthen Bunding for agricultural fields in Individual Households

Earthen Bund is the most popular soil conservation structure. It may be defined as construction of small embankment with soil along the contour line of the land. It decrease the length of slope and intercepting the runoff flowing down the slope thus conserving moisture and reducing soil erosion. It would enhance soil moisture regime around the area proposed.

Paragraph 4(1) of Schedule-I of the MGNREGA, permits taking up of Land development works in common land works under category A: Public works relating to natural resources management.

Earthen bunds are constructed on agricultural land with the aim of arresting soil erosion and improving the soil moisture profile.

- These bunds on farms should be made on the contour line. It would lie along the boundary of the field.
- By construction of bunds the field is divided into several units.
- These bunds control the volume and velocity of runoff in each such unit and the top soil which is nutrients to the crops are retained, thus increase in the productivity.

### **Selection Procedure:**

- The earthen bunding is ideal for red gravelly / loamy soil types.
- It should be avoided in clay / black loam soil.
- The land with gentle slope 1% to 3% shall be selected.
- The earthen bunding should be formed with the excavation of pits and construction of embankment in the field.

- Waste weir shall be made with the help of earth heap in order to dispose the excess water from one unit to the other at the end of the contour line or where the natural drain is available.
- The earthern bunding proposed for individual farmer shall be small farmer / Marginal farmer, SC / ST, Women headed families and persons with disability etc.,
- The farmer shall be a jobcard holder under MGNREGS.

### **Construction Procedure:**

- The size of the bund is (1.35+0.45)m x 0.45m, trapezoidal section of bottom width 1.3m.
- 5m, top width 0.45m and height of 0.45m.
- It shall be executed in the rain fed lands in order to preserve the soil moisture for best crop productivity.
- The earthen bunding should be marked along the contour line and the boundary of the beneficiary land.
- The detailed estimate shall be prepared for each worksite of the farmer and photographs shall be enclosed in the estimates.

# D. Guidelines for the execution of Stone Bunding for agricultural fields in Individual Households

The bund made up of stones along the contour line is known as stone bunding. They are constructed along a contour in order to slow down the water flowing down the slope, allowing rainwater to seep into the soil and spread more evenly over the land and to control erosion.

Paragraph 4(1) of Schedule-I of the MGNREGA, permits taking up of Land development works in common land works under category A: Public works relating to natural resources management.

As per the norms permitted under MGNREGS, Works creating individual assets shall be prioritized on land or homestead.

In the labour budget 2022-23, Stone bunding activity is taken up under land development activity in the hilly and sloppy areas, in order to increase local resilience to the climate change and conservation of soil and water. It is selected in such places where stones are generally

available in abundance, and local people are able to make it themselves, particularly in Dharmapuri, Krishnagiri, Dindigul, Karur, Tiruppur, Namakkal, Erode, Salem and Coimbatore, etc.,



The construction of stone bund is taken up under Land development activities in MGNREGS for water harvesting due to the following reasons,

- The stone bund slows down water runoff, which helps with building-up a layer of fine soil and manure particles, rich in nutrients.
- Contour stone bunds protect the land from heavy rain in years with high rainfall.
- In drought years, they improve rainwater harvesting, retention and infiltration into the soil, increasing the amount of water available to plants and guaranteeing the harvest
- If a good vegetation cover is developed on the stone bunds, they also lower soil temperature, provide protection against wind erosion and help to conserve biodiversity.
- Crops in plots with stones bunds could yield two to three times more than crops in control plots.

### Selection Procedure for the individual lands:

- Hilly Terrain area may be best suited for stone bunding.
- The land where the boulder stones are available in plenty may be given priority for construction of stone bund.
- The site should be of gravelly soil to facilitate the increase in ground water.

- The earthern bunding proposed for individual farmer shall be small farmer / Marginal farmer, SC / ST, Women headed families and persons with disability etc.,
- The farmer shall be a job card holder under MGNREGS.

### Construction Procedure:

Stone bunding in the Agricultural fields,

- The pit for foundation is laid for Length(m) x 1.200m(Width) x 0.30m (Depth)
- One layer of rough or boulder stone is roughly placed in the pit with proper bond stones of suitably small sizes for bonding Length(m) x 1.20m(Width) x 0.30m (Depth)
- Above this foundation layer another layer of stones to a dimension of Length (m)x (1.20+0.30)/2 (m) x 0.30(m) is laid with proper bond stones above the ground level.
- The labour charges for the uploading, downloading to the construction area and laying of the stones along the contour line is provided for unskilled labour.
- Skilled labour (Mason II) is provided for proper laying of stones as per the PWD SoR.
- The detailed estimate shall be prepared for each worksite of the farmer and photographs shall be enclosed in the estimates.
- Photographs shall be taken before execution, during execution and after completion of work.

P. AMUDHA
PRINCIPAL SECRETARY TO GOVERNMENT

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SECTION OFFICER.

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#### Annexure-IV

## G.O.(Ms).No.62, Rural Development and Panchayat Raj (CGS.1) Department, dated 20.05.2022.

#### A. Guidelines for Massive Tree Plantation

#### Introduction

Raising of tree plantations is the need of the hour in the context of climate change. Depletion of forest cover, biodiversity and other natural resource, are leading to poverty and disturbance in hydrological cycle, which in turn affects the cropping pattern and cropping intensity.

#### Work Selection:

As per the guidelines issued in Para 7.6.1 of the Annual master circular 2021-22,

- The tree plantation shall be taken up under Common Land, private institutions, schools, colleges, park and other suitable areas including Forest area with the approval of Gram Sabha.
- Preference shall be given to the area which is nearer to any natural water source like kulam, pond etc..,
- If there is no natural source is available, source should be provided within the MTP Site like extension of pipe line, bore well etc.., which shall be met out from any other funds. Creation of water sources-In all Block plantation sites, permanent water sources shall be created from the available resources like SFC, 15<sup>th</sup> Finance Commission, Panchayat Union & Village Panchayat General funds for ensuring availability of water throughout the year.

#### **Selection of Species:**

- 1. Plant species should be selected as per agro-climatic conditions.
- 2. The plant species should be selected in consultation with the horticulture/Forest/Agriculture Universities and the types of plants is to be identified and finalised before preparing the estimate.
- The community lands can be planted with diverse fruit yielding tree species like Mango, Sapota, Nelli, Coconut, Tamarind, Guava, etc., and drumstick, guava, Teakwood, Pungai, Neem shall be planted in schools, anganwadis, etc.,
- 4. Saplings shall be used from the Block Nurseries free of cost.

## Technical Specifications for execution of works

### 1. Preparation of Estimates

- In the case of new plantations, the plantation cost for the first year 2022-23 and the provision for maintenance in the 1<sup>st</sup> year shall be included in the original estimate itself.
- The maintenance cost for the 2<sup>nd</sup> and 3<sup>rd</sup> year has to be included in the subsequent year's labour budget.
- One single maintenance estimate shall be prepared every year for all the block plantations works within the panchayat. This shall include sub-estimate for various locations within the panchayat.
- The manure produced from the vermi compost shall be used for Mass tree plantation at free of cost.
- 20% casualty replacement rate may be adopted for plants for the first year of growth and 10% casualty replacement rate for the second year. This cost shall be added to the overall maintenance cost of the corresponding year.
- The works taken up for maintenance of plants and the cost of maintenance shall be reflected in the labour budget of the concerned Village Panchayat.
- Moreover, Maintenance will be considered as a separate work like any new work.

#### 2. Execution and Maintenance

- 1. The plantation of saplings shall be done as per Innovative Root Zone Watering method, since, this gives better survival.
- Live fencing is not necessary for each plant but Soil and moisture conservation works such as Continuous Contour Trench (CCT), Staggered Contour Trench (SCT), water Absorption Trench (WAT) shall be provided along the boundary of the plantation sites which also prevent the plants from the grazing animals.
- Watering to the plants is to be provided for 68 days in a year as per the schedule as detailed below.
- 4. Weeding, mulching and manuring shall be done twice a year per plant.
- Watering, weeding and manuring and replacement of the causalities shall be done during the maintenance period.

 Maintenance plan for each type/variety of plants shall be prepared in consultation with Forest and Horticulture Department and it will be handed over to the Panchayat Secretary and Overseers of the concerned Village Panchayat. This should include details about watering, application of fertilizer, mulching, weeding, gap filling etc.,

#### 3. Documentation

Photographs of the site before undertaking the work, during execution of the work and after completion of the work should be taken and properly documented along with the geo tagging.

#### 4. Schedule of Activities

The districts shall draw up maintenance schedule for each plantation site based on the species of plant, age of the plant and climatic conditions.

#### 5. Plantation Asset Register

- Each panchayat shall maintain a register containing the details of the various plantation sites within the panchayat. This should include the location with Survey No., year of plantation, estimate cost, no. of saplings, variety of species along with watering, gap filling and survival details during the maintenance period and remarks of the inspecting officer. The asset register for plantation activities shall be exclusively maintained in a format in all Village Panchayats wherein Avenue Plantation or Block Plantation is undertaken under MGNREGA. The maintenance activities will include watering, weeding, mulching and Gap filling of seedlings.
- All the existing plantations under MGNREGS and the asset register has to be periodically inspected by the Overseer, Zonal Deputy Block Development Officer, Assistant Engineer/Block Engineer, Block Development Officer, Assistant Executive Engineer, Block level Zonal Officer in Assistant Director Cadre, Assistant Project Officers, Executive Engineer (RD) and Project Director (DRDA). This is to ensure the survival of saplings planted and to monitor the growth of plants.

#### Schedule of Activities

I	First year	
1	Site preparation by cleaning, cutting bushes, weeds and removal wherever necessary as per the RSoR	
2	Moisture conservation works such as sunken pits in the drains	

3	Aligning and marking of pits	
4	Pitting	
5	Planting & Refilling	At the onset of monsoon
6	Live thorny tree guard or any other cost effective durable tree guard	
7	Cost of saplings	Free of cost if raised in Nursery under MGNREGS
8	Transportation cost of seedlings	
9	Schedule of Maintenance activity (like watering, weeding, mulching and Manuring is annexed in table	
10	Manure	Organic compost or Vermi- compost shall be used free of cost
11	Weeding, Hoeing followed by Mulching & manuring @ 2times as per the Schedule of Maintenance	
12		
	<ul> <li>Material cost (out of Col.</li> </ul>	
de si	<ul> <li>Labour cost (out of Col. 12)</li> </ul>	a recept end in alternation and the second
II	Supplementary Estimate for I	Maintenance- Second year
1	Supplementary estimate as per	
III	Supplementary Estimate for	Maintenance- Third year
1	the Schedule of Maintenance	
	Grand Total (I year + II Year + III Year)	

## Schedule of Maintenance activities for plantation

Year	Month	Activities
1 <sup>st</sup> year	Jan	Watering 5 times, Weeding
	Feb	Watering 8 times, Mulching and Manuring (To be provided by village panchayat)
	March	Watering 9 times
	April	Watering 9 times
	May	Watering 9 times

<del>* * * - *</del>	June	Watering 9 times			
	July	Watering 8 times, Casualty replacement (20% of the total plants).			
	August	Watering 4 times, Mulching and Manuring (To be provided by village panchayat), Casualty replacement (20% of the total plants).			
	Sept	Watering 4 times			
	Oct.	Watering 2 times			
	Nov.	Mulching and Maintenance			
	Dec	Weeding, Watering 1 time			
2 <sup>nd</sup> year	Jan	Watering 5 times, Weeding			
	Feb	Watering 8 times, Mulching and Manuring (To be provided by village panchayat)			
	March	Watering 9 times			
	April	Watering 9 times			
	May	Watering 9 times			
	June	Watering 9 times			
#1	July	Watering 8 times, Casualty replacement (10% of the total plants).			
	August	Watering 4 times, Casualty replacement (10% of the total plants).			
	Sept	Watering 4 times			
	Oct.	Watering 2 times			
-	Nov.	Mulching and Maintenance			
	Dec	Weeding, Watering 1 time			
3 <sup>rd</sup> Year	Jan	Watering 5 times, Weeding			
	Feb	Watering 8 times, Mulching and Manuring (To be provided by village panchayat)			
	March	Watering 9 times			
	April	Watering 9 times			
	May	Watering 9 times			
	June	Watering 9 times			
	July	Watering 8 times			
	August	Watering 4 times			
	Sept	Watering 4 times			
	Oct.	Watering 2 times			
	Nov.	Mulching and Maintenance			
	Dec	Weeding, Watering 1 time			

## **B. Guidelines for Avenue Plantation**

#### 1. Preparation of estimates:

1. Each Village Panchayat can have maximum 2 Avenue Plantation estimates.

- If more number of roads is taken up in a Village Panchayat, then road wise sub-estimates shall be prepared and clubbed to have a maximum of 2 estimates. One estimate should cover the SC/ST areas.
- 3. The estimate should be prepared for plantation and watering for 1 year with supplementary estimate for 2 years of maintenance (i.e) for the  $2^{nd}$  year and  $3^{rd}$  year.
- Road wise list of PMGSY roads, Panchayat Union Roads and Village Panchayat roads are taken and among these priority is given to PMGSY roads, then Panchayat Union Roads and then Village Panchayat Roads.

#### 2. General Instructions:

- While planning for road side tree plantation, certain restrictions imposed for safety requirement by engineering, traffic system should be followed:
- Trees should be planted at a minimum 0.5 metre beyond the toe
  of the roadway so that they are not safety hazard or affect the
  required sight distance
- Trees should be planted clear of roadside drains and other drainage structures so that their root system does not interfere with efficient working of the drainage facilities.
- Where there is no sufficient land width available, then the trees could be planted beyond the shoulders keeping in view that the roots do not damage the carriage way and the shoulders.

## 3. Provisions of Sunken Pits for Moisture Conservation:

- Sunken pits could be dug up in the road side drains wherever feasible to ensure water recharge which will also serve dual purpose of benefitting the plants planted.
- The sunken pits could be dug up in the existing drains with respect to the spacing of plants to a length of 2m and depth of 0.45m keeping the width equal to the existing drain.
- These sunken pits could be included in the estimate as moisture conservation works wherever feasible.
- Saucer pit shall be provided for all the plants.

#### 4. Technical Instructions for taking up Avenue Plantation:

- A spacing of 10 m between the plants is to be adopted for Avenue plantation depending on the species. If 10m is adopted as spacing, then the number of plants for 1 Km is 100 on each side, totaling 200 plants on both sides of the road.
- The extent of the road should be measured and where the width is available for plantation alone be taken as the effective length. Sometimes the width may be available for only one side of the road and plantation carried out only on that side. The same has to be specified in the estimate.
- The species suitable to the soil, climate and preference of the villagers/farmers in consultation with the Forest Department should be selected.
- Aligning and marking should be done on the site so that the trees are placed in line with each other.
- The plantation location should be in such a way that,
- 1. It should not be placed on bell mouth entry of branch roads.
- 2. It should not be placed in front of house entry gate, but can be placed on the edge of individual plot.
- 3. It should not be placed below the low lying EB line.
- Tree Guards: Tree guards are mandatory up to 4ft height of plants.
   Any of the following material may be used for as Tree guards for the Avenue Plantation:

SI. No.	Type of Tree Guard	Durability	Fund Utilisation	Rough cost Estimate
	Green Net shade with	limbo 1	Material	
1.	Bamboo poles at	Upto 1 Year	Component	Rs. 40-50
	corners(Ideal for the	rear	under	
	growth of plants)		MGNREGS	
	Empty Cement sacks		To be	
2.	with supporting	6 months	obtained from	Free of
	Bamboo poles at four	only	panchayat	Cost
	corners		union office	

3.	Low cost Bamboo (If available)	Upto 1 Year	Material Component under MGNREGS	Rs. 45-50
4.	Any other low cost locally available material	Upto 1 Year	Material Component under MGNREGS	Rate should not exceed Rs. 50
5.	Live Thorny fencing densely tied together with required bracings (The jungles already cleared in works taken up in MGNREGS shall be utilized for tree guard)	Upto 1 Year	Labour Component under MGNREGS	labourers to provide 10 tree guards per day and they have to be paid as per RsoR

- Land development works such as clearance of thorny bushes, weeds at the site should be taken up only if found necessary by adopting Government of India notification and this should be personally checked out site by the AE / JE concerned.
- Moisture conservation works such as sunken pits shall be provided wherever feasible at places where the plantation level and drainage level more over same so as to maintain moisture in the root zone.
- Depending on the number of plants arrived, the component of the pitting, refilling should be included in the estimate.
- Saucer pit shall be provided for all the plants.
- Weeding and hoeing followed by mulching and manuring operation shall be included in the estimate at the rate of twice per year (as per the schedule of maintenance). The technical advice of the departments concerned shall also be obtained in this regard.
- Organic compost or Vermi compost shall be used in the pits before planting the tree saplings. The manure /compost produced through the SWM / Vermi compost units within the Village Panchayats/ Blocks may be utilised for plantation activities of their Village Panchayat free of cost.

Casualty replacement at the rate of 20% maximum during the 2<sup>nd</sup> year shall be included in the estimate for planting below 1 year old seedlings. The reason for the mortality should be assessed. If the seedlings are raised in Nurseries for one to two years and then planted, the survival rate will be more and the casualty replacement of only 5% maximum should be allowed.

#### 5. <u>Technical Note should cover the following:</u>

1	Name of the Work: Providing Road side Tree Plantation under
	MGNREGS -2022-23.
2	Name of the Road:
3	Length of the Road: Km
4	Effective length available: Km
	Specify the location:
	Whether proposed for both the sides/one side:
	Specify the reach:
5	Soil type:
6	Species selected:
7	Recommended spacing:
8	No. of plants that could be planted:
	Specify the Reach and No. of plants:
9	Size of the pits recommended:

#### 6. <u>Items to be covered in the Estimates:</u>

I	First year	
1	Site preparation by cleaning, cutting bushes,	Before the onset
	weeds and removal wherever necessary as per the RSoR	of monsoon
2	Moisture conservation works such as sunken pits in the drains	
3	Aligning and marking of pits	н
4	Pitting	
5	Planting & Refilling	At the onset of monsoon
6	Live thorny tree guard or any other cost effective durable tree guard	
7	Cost of saplings	Free of cost if raised in Nursery under MGNREGS
8	Transportation cost of seedlings	

9	Schedule of Maintenance activity (like	
	watering, weeding, mulching and Manuring	
	is annexed in table	
10	Manure	Organic compost or Vermi-compost shall be
		used free of cost
11	Weeding, Hoeing followed by Mulching	and acres in
	&manuring @ 2 times as per the Schedule of	
	Maintenance	
12	Total cost for I year	
	Material cost (out of Col. 12)	
	Labour cost (out of Col. 12)	
II	Supplementary Estimate for Maintenance- Se	cond year
1	Supplementary estimate as per the	
-	Schedule of Maintenance	M31 27 -
III	Supplementary Estimate for Maintenance- Th	ird year
1	Supplementary estimate as per the	
	Schedule of Maintenance Schedule	
	Grand Total (I year + II Year + III Year)	
1		

## Schedule of Maintenance activities for plantation

Year	Month	Activities
1 <sup>st</sup> year	Jan	Watering 5 times, Weeding
	Feb	Watering 8 times, Mulching and Manuring (To be provided by village panchayat)
	March	Watering 9 times
	April	Watering 9 times
	May	Watering 9 times
	June	Watering 9 times
42,	July	Watering 8 times, Casualty replacement (20% of the total
	August	Manuring /To be provided
<u> </u>	Sept	Watering 4 times
	Oct.	Watering 2 times
	Nov.	Mulching and Maintenance
	Dec Dec	Weeding, Watering 1 time
2 <sup>nd</sup> year		Watering 5 times Weeding
2 <sup></sup> year	Feb	Watering 8 times, Mulching and Manuring (To be provided by village panchayat)
	March	Watering 9 times

	April	Watering 9 times
	May	Watering 9 times
	June	Watering 9 times
	July	Watering 8 times, Casualty replacement (10% of the total
		plants).
	August	Watering 4 times, Casualty replacement (10% of the total
		plants)
	Sept	Watering 4 times
	Oct.	Watering 2 times
	Nov.	Mulching and Maintenance
	Dec	Weeding, Watering 1 time
3 <sup>rd</sup> Year	Jan	Watering 5 times, Weeding
	Feb	Watering 8 times, Mulching and Manuring(To be provided
		by village panchayat)
	March	Watering 9 times
	April	Watering 9 times
	May	Watering 9 times
	June	Watering 9 times
	July	Watering 8 times
1.5	August	Watering 4 times
	Sept	Watering 4 times
	Oct.	Watering 2 times
· 1/5	Nov.	Mulching and Maintenance
	Dec	Weeding, Watering 1 time

#### C. Guidelines for Palm Tree Plantation

#### The following points to be considered while planting palm trees:

- · Procurement of good quality seeds.
- Dibbling of palm tree seeds to a depth of 0.5 m.
- Watering to be provided for 60 days daily and 120 days alternately. Watering days may be varied based on site condition.
- Palm tree seeds should be placed only on the downstream and upstream side of MI tank/ Pond bund. No seeds shall be placed on top of bund.
- Based on the sloping length of the upstream side bund, number of rows for the plants may be increased or decreased.
- For MI tank bunds, while placing palm tree seeds care should be taken near the sluice or weir portion.
- Based on soil nature the gap between adjacent palm trees shall be decided. If necessary, Guidance of Horticulture department may be referred.

### Monitoring of Plantation Activities.

As the plantation activity and Nursery rising will be given priority, an exclusive portal for Nursery Raising and Plantation activity will be established in www.drdpr.tn.gov.in.Pasumai Kavalars will be utilized to monitor the Plantation and Survival and necessary details will be uploaded in the portal.

The survival should be taken into consideration and saplings should always be available to replace the damaged saplings. 100% of Survival Rate should be ensured by timely replacing of the saplings.

The Schedule of Maintenance activities for plantation for three years is provided and Administrative Sanction for each year should be accorded separately for the better maintenance and monitoring.

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#### Annexure-V

# G.O.(Ms).No.62, Rural Development and Panchayat Raj (CGS.1) Department, dated 20.05.2022.

## Guidelines for Horticulture in individual lands:

# The following points to be considered while planting Horticulture trees:

- 1) Selection of good quality seedlings.
- Depth of digging pits, Spacing between saplings, Method of watering, Watering days etc may be decided based on the species variety, soil type and local climate condition.
- Outer fencing around the plant site or individual fencing around each sapling shall be provided to protect plants from cattle.
- Separate path area for movement of vehicles shall be given for the harvesting of fruits/Vegetables if necessary.
- 5) If necessary, Guidance of Horticulture department may be referred.
- 6) 7760 beneficiary selection/ Species selection for Horticulture Plantation will be done in consultation with Horticulture Department. The Authenticity of Small/Marginal and SC/ST Farmers will be duly verified with necessary certificates in consultation with Revenue Department.
- 7) This plantation activity can be taken-up in a comprehensive manner alongwith other works such as Farm pond, Trench cutting, Continuous Contour Trench around the land, Bund formation, Dug wells, etc., which will eventually help in achieving better survival rates of the cultivated plants.

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#### **Annexure-VI**

## G.O.(Ms).No.62, Rural Development and Panchayat Raj (CGS.1) Department, dated 20.05.2022.

#### **Guidelines for Raising of Nursery:**

Tamil Nadu receives rainfall from North East Monsoon and South West Monsoon. Accordingly the saplings can be raised in the nursery for planting before the monsoon starts. The seedlings raised from April to September for planting in the North East monsoon period and from December to May for planting in the South West Monsoon period.

#### PLF as Programme Implementation Agency (PIA):

- The New 388 Block Nursery, 3500 Moringa Nursery and 1500 Horticulture will be established and Panchayat Level Federations comprising SHG women will be entrusted as Programme Implementing Agency.
- Panchayat Level Federations to act as PIA for each nursery will be identified by PD, DRDA and PD, TNSRLM.
- The CLF as PIA will ensure the compliance of all non-negotiables under Mahatma Gandhi NREGA.

#### Site Selection

- > **Location:** The site should be centrally located with easy access for transportation of seedlings
- ➤ **Topography and Drainage:** The area should be almost flat with good drainage. This can be managed by providing qente slope (5 degrees) and channels should be dug to drain out excess water from the nursery.
- > **Soil:** The ideal nursery should have sandy loam to loamy texture.

#### **Layout of Nursery**

- The nursery should be of arec tangular shape preferably; so that it can be divided into smaller nursery beds of rectangular shape, leaving space for roads, inspection paths, dumping of manure and space for people working in the nursery to rest during rain or intervals.
- > The requirement of the total area for the nursery can be calculated

- by adding together the area required for mother beds, polybags, entire plant/root shoot cuttings and beds required for rooted cuttings.
- > 40% area may be added for making the path. Area will also increase if seedlings are kept in the nursery for more than one year, especially for raising tall plants. Area required for sheds, water tank, storage of seed, manure etc. should also be kept in mind. The area required for digging a pond should also be added.

#### Requirement of Nursery:

#### Initial Expenditure

	Jungle Clearance- The site should be cleared properly by removing all stums, roots, etc.
Site Preparation	Land Levelling- The soil should be leveled to form an even slope or, if a site is flat, should be slightly domed. As far as possible, removing of top soil must be avoided.
	Pathways & Drains- Space should be provided for pathways. Drains should be dug on both sides of the paths and connected to main drain. Channels should be dug to drain out excess water from the nursery.
	Depending upon the local conditions and availability of funds
Fencing	<ul> <li>Live fencing which can be met out under MGNREGS</li> <li>Cattle proof trench along with live fencing which can also be met out under MGNREGS</li> <li>Chain link wire mesh fencing with GT posts by utilizing Panchayat Union/ Panchayat general fund.</li> <li>Brick pillars with grills by utilizing Panchayat Union/ Panchayat general fund.</li> <li>(Any other cost effective and durable fencing may also be planned and can be met out from Panchayat/ Panchayat Union General funds.</li> </ul>
Water Facilities	<ul> <li>The provision of borewell, motor and sprinkler or sintex tank with mounted platform or a water tub shall be made dovetailing from Panchayat, Panchayat union General Funds.</li> <li>A percolation pond if necessary can be dug up by utilizing MGNREGS funds.</li> </ul>

Shed	<ul> <li>A temporary shed under lock &amp; key is necessary for storage of seeds, manure, polybags and implements and for people working in the nursery to rest during rain or intervals and for the watch &amp; ward.</li> <li>The shed can be constructed using any cost effective methods. Flooring is essential and roofing shall be of Galvalum sheets. It can be met out from Panchayat/Panchayat union General fund.</li> </ul>
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#### **Establishment of Nursery**

#### Formation of Germination beds:

- The plot where seed beds are to be prepared must be leveled and sloped(1 to 3%),depending upon the texture of soil(less slope for sandy soils),
- In the plains, beds of 10\*1 m size and in the hills beds of 2\*1 m are generally prepared.
- However, size can be changed depending on the availability of the area. Width of beds should not be more than 1.2 m otherwise weeding/ watering of seedlings; especially in the middle part of the bed shall be a problem.
- The beds should be oriented in **East- West direction in the plains** and should follow contours in the hills.
- It should be ascertained that the soil in the seedbed is light.
- If necessary, sand and soil (1:1) may be mixed so that the seedlings can break through when germinate
- The ideal nursery should have sandy loam to loamy texture. Soll should have pH 5.5 to 7.5, moderate fertility, with a minimum of 2.5% organic matter. It is not always possible to get good soil everywhere. Under such circumstances, one has to get extra soil, sand as well as farm yard manure from outside; therefore, location of nursery should be close to such areas.

#### Shifting and grading of plants:

- It is essential to provide adequate growing space in the beds for speeding up the growth of plants in the nursery.
- There1fore, the surplus plants should be removed carefully and planted in new beds.
- The beds should be irrigated before the shifting and grading operations.

#### Seed Procurement:

- For proper germination and to obtain a healthy plant, good quality seeds need to be procured. The concerned line departments should be consulted while procuring quality seeds for nursery raising.
- The quality seeds may be procured from the Government farms run by Horticulture and forest departments.
- The District Collector, based on the prevailing market rate and in consultation with the line Departments, shall issue the upper ceiling cost for the purchase of seeds every year
- Procurement of Seeds may be done from private farms either by calling tender or by calling quotations, based on the value of procurement.

#### Seed Sowing:

- Sowing can be done either by broadcasting/scattering, or In lines along the width of the bed.
- Broadcasting method is used for minute seeds such as Eucalyptus.
- These are generally mixed with equal amount of fine sand to facilitate uniform seed distribution.
- The small and medium sized seeds are sown In lines or drills 5 to 10 cm apart, the seed is covered with sand or sieved soil and gently firmed.
- Sowing depth is crucial for the production of a uniform bed of seedling.
- Best germination is obtained in the case of small and medium sized seed, when they are sown as deep (0.3 to 0.6 cm) as necessary to cover them.
- The general rule is that the upper surface of the seed should be at a depth equal to the diameter of the seed.

## Direct Sowing of seeds in Polythene Bags:

Sometimes seeds are directly sown in the polythene bags viz. seeds
of Gulmohar. In such cases the bags should be completely filled with
dry soil and left standing for few days, so that the soil settles.

- The bags should be watered well the day before sowing. Two seeds should be sown per bag and then covered with sand or with a mixture of sand and soil.
- Heavy soil should not be used for covering, as the germinating seeds may not be able to break through this hard covering.
- Seeds directly sown into bags normally attain more growth compared to pricked out seedlings and become ready for planting much earlier.
- After germination, only one healthy seedling per bag should be retained and the other be pricked out into vacant bags.
   Vegetative Propagation of plants such as cuttings, grafting and budding can also be adopted.

#### **Proving shades in the Nursery:**

- Most of the trees species need shade in the early stage of germination while the seedlings are still tender.
- Dry grass, bamboo mat, palm leaves or wheat straw can be used as shading material but tin sheets should be avoided. Shade should be slanting towards North-South to protect the seedbeds or seedlings from the hot sun.
   MULCHING:
- Mulch refers to plant residues and other materials used as a covering for the soil to conserve moisture, reduce run-off and erosion, check
- Mulching materials are usually cut grass, foliageor straw.

weed growth, protect from winter climate or improve the soil.

#### **Preparation of Potting Mixture:**

- The potting mixture should be prepared with meticulous care and control. A fine mixture of soil, sand and manure in the ratio of 6:1:3 should be prepared.
- Before mixing the soil and sand should be sieved and pebbles and other undesirable material separated.
- The manure should not be sieved but rubbed with hands to make it fine and twigs and other impurities should be removed.
- Insecticides in the prescribed proportion should be mixed in the mixture.

- The main characteristics of a good potting mixture are
  - a) It must be light in weight.
  - b) It must be well drained and not hold too much water,
  - c) It must be free from insects, diseases and weed seeds,
  - d) It must not contain clay soil or large amount of ashes.
  - e) All materials must be well decomposed.

#### Filling of Polythene bags:

- The polythene bags should be punched with a sharp punching tool to make sufficient number of holes, to enable drainage of excess water.
- By using a pincer like punch, twenty or thirty bags can be punched together.
- A scoop can be used for filling the potting mixture into the polythene bags.
- After first fill, the bags should be struck on ground to let the soil settle in and firm in and then the pot should be filled again.
- If loosely filled, soil will settle later and make polybags limp, resulting in dislodgement of roots and heavy mortality of plants during handling.
- Atleast half to one inch from top of the pot should be kept empty to avoid spillage.
- Filled polybags should be placed erect within the sunken beds meant for the purpose.

## Transplanting of seedlings:

- As a general guide to transplanting age,20 to 30 days (excluding germination period) is adequate for most of the species.
- For transplanting, a scoop may be used to lift a group of plants with soil.
- From this soil the individual plantlets can be separated and inserted into holes made in the polybag soil by thrusting a sharp punch.
- The depth of the hole should be equal to the length of the root of the seedling, so that the root does not bend while being pushed into the hole. After inserting the plantlet roots, the hole is closed over up to the collar of the plantlet.

#### After care of Seedlings:

 Seedlings require till they are planted out in the field. This includes weeding, watering, manuring, hardening, protection against adverse climate, diseases and insects / pests.

#### Pruning:

- Root Pruning is also essential to avoid deep penetration of roots in the soil and in the process, the plant gets hardened.
- Pruning of roots helps in the development of tertiary roots.

#### Hardening off Seedlings:

- Life is easy for the plants in the nursery since they receive good care there.
- However, once planted in the field, life is much harder for them.
- They may not have enough water or food to live very well.
- Therefore, seedlings must be made tough to survive well in the field.
- This is called hardening off.
- It is achieved by gradually reducing the frequency of watering before one month of planting.
- However, care must be taken that seedlings are not burnt in the process.

#### **Transportation of Seedlings:**

- Seedlings are very delicate and should be handled properly.
- The polybag seedlings should always be held by the bag and never by the plant itself.
- Seedlings should be watered thoroughly before carrying them to the field. Seedlings should be transported in the trays, boxes or baskets and not tied in bundles with strings or grass.
- In case of stumps, they should be bundled, wrapped with a wet sack and transported to the field.
- The plants should be kept in shade and plants not planted the same day should be sprinkled with water in the morning and evening.

#### **Nursery Management System:**

In order to achieve green canopy in Tamil Nadu and Provide employment to PLF as PIA, it is proposed to undertake Plantation of 69 Lakh in Public Places and 25 Lakh Palm Tree around Traditional Water Bodies. Further, it is proposed to undertake plantation of Horticulture Saplings in individual farmers land and provide moringa saplings to SHG women in rural area. In this regard, it is proposed to establish 388 New Block Nurseries, 1500 Horticulture Nurseries and 3500 Moringa Nursery.

The nursery and saplings raised are assets of panchayts. In order to monitor the nursery maintenance, no of saplings available, plantation details and survival of plantation an exclusive portal for Nursery Raising and Plantation activity will be established in <a href="https://www.drdpr.tn.gov.in">www.drdpr.tn.gov.in</a>.

#### 1. Database Creation:

- Nursery details like area, location, number of seedlings available, fencing type, water source, CLF/PLF members, species etc will be created for both existing and newly formed nurseries in online database for each nursery at block level through Website/App.
- The above mentioned Database will be updated regularly.
- Also Database will be linked along with Thittam App.

### 2. Monitoring:

Nursery Management System involves the following procedure.

- Raising of seedlings shall be based on Batch numbering.
- Based on the Batch, Number of seedlings is categorized with respect to type of species, age and height.
- Similarly the details of causalities and replacement of seedlings also be tracked from batch numbering which ensures the survival rate.
- Further physical progress shall be updated regularly in nursery until the distribution of seedlings to Rural Development/Other departments/ Individuals.
- In addition to the above, frequent observation of the growth of distributed saplings will be tracked through mobile app.
- From the feedback of inspection through app, the causalities and respective replacement of seedlings shall be ensured.

- Under financial progress, expenditure (Capital & recurring), revenue details (Sale of seedlings) will be updated regularly.
- Dashboard and reports will be generated in <u>www.drdpr.tn.gov.in</u> website for regular monitoring.

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#### **Annexure-VII**

# G.O.(Ms).No.62, Rural Development and Panchayat Raj (CGS.1) Department, dated 20.05.2022.

# Guidelines for Issue of Moringa saplings to the Households of SHG women to create Anaemia free healthy Society.

- 1. 10,50,000 SHG women will be identified and Two Saplings each will be provided to them.
- The list of SHG women should be finalized by PD, DRDA and PD, TNSRLM.
- SHG women shall plant the saplings by themselves at their home and avail the benefit. (Plantation should not be done under MGNREGS)
- Preference should be given to SHG Women members in the Village Panchayats selected for the implementation of Anaithu Grama Anna Marumalarchi Thittam-II (AGAMT-II).

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#### **Annexure-VIII**

### G.O.(Ms), No.62, Rural Development and Panchayat Raj (CGS.1) Department, dated 20.05, 2022.

Anganwadi Centres are being constructed in rural areas, so as to provide nutrition, preschool education, and health and to inculcate the habit of personal hygiene in children, adolescent girls, pregnant and nursing mothers. In the Anganwadi Centers, the children from two years to five years are provided with supplementary nutrition, hot cooked meal, health care and pre-school education and also adolescent girls, pregnant and lactating mothers with supplementary nutrition besides health care, awareness education and capacity building initiatives. These Anganwadi Centres are the durable assets and very much useful in promoting health and education at village level and also take care of the children MGNREGS workers in all the villages.

#### Selection of work:

The Project director, DRDAs to consult the Project Officer, ICDS/Social Welfare Department in the district, for identifying the location for Anganwadi centres. The proposed work shall be approved by the Gram Sabha of concerned Village Panchayat.

Priority should be given to the Tribal Village Panchayats and 5201 Villages covered under Anaithu Grama Anna Marumalarchi Thittam-II during 2021-22 and 2022-23.

#### Design Criteria:

The Anganwadi Centre should be child-friendly with all relevant infrastructure facilities like child-friendly classroom with black board(upto sill level), painted cartoon, separate kitchen, store for storing food items, child-friendly toilet and toilet for differently abled, ramp, compound wall, paly materials and kitchen gardens.

#### Non-Negotiable items:

The CIB should only be wall painted for Anganwadi at front side of the building at a cost of Rs.1000 per unit.

#### **Technical Specifications:**

- Economical foundation footing is to be adopted based on the soil condition at site.
  - 2. Flooring for classroom should be done using ceramic tiles.

- 3. Granolithic floor finish shall be adopted for kitchen and store.
- 4. Anti-skid tiles must be used for toilet area.
- 5. Weathering course should be provided.
- 6. Baby friendly toilet should be constructed based on the guidelines issued specifically under this category.
- 7. Toilet for differently-abled should be constructed with ramp provision.
- 8. Ramp should be provided at the entrance of the building and Kitchen garden should be set-up within the premises.
- 9. Water Supply to Kitchen and Toilet should be provided.
- 10. Rainwater Harvesting Structure should be constructed.
- 11.Provision for tactile and signages for differently abled should be given compulsorily.
- 12. Compound wall should be constructed compulsorily.
- 13. Painting of pet animals/popular cartoon characters, over the classroom wall, toilet and compound will create a friendly environment. The provision for the same should be included in the estimate.
- 14. Provision for procurement of play materials for children should be included in the estimate.

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