



## **ABSTRACT**

Forests – Annual Plan for the year 2018-2019 – Schemes for Forest Research – Administrative and Financial sanction of Rs.390.00 lakhs to carry out Research works during 2018-2019 – Orders – Issued.

### **ENVIRONMENT AND FORESTS (FR.7) DEPARTMENT**

G.O. (D) No.191

Dated: 18.07.2018

விளம்பி, ஆடி -2

திருவள்ளூர் ஆண்டு - 2049

Read:

From the Principal Chief Conservator of Forests Letter No. J1/13807/2018, dated: 11.04.2018.

### **ORDER:**

In the reference read above, the Principal Chief Conservator of Forests has sent the proposals for carrying out various research works during 2018-19 with detailed plan, estimate and justification at a total cost of Rs.390.00 lakhs as detailed below:-

Sl. No	Name of the Research Works	Amount (Rs. in lakh)
1.	New Research works	124.30
2.	Ongoing Research works	33.40
3.	Supporting works for Research activities	201.17
4.	Research documentation and Extension activities	31.13
<b>Total</b>		<b>390.00</b>

2. The Government, after careful examination, accept the proposal of the Principal Chief Conservator of Forests and accord administrative and financial sanction to implement the schemes for Research as detailed in annexure to this order at a total cost of Rs.390.00 lakhs (Rupees three crores ninety lakhs only) during the financial year 2018-2019.

3. The expenditure sanctioned in paragraph 2 above shall be debited to the following head of Account:

“4415 – Capital outlay on Agricultural Research and Education  
– 06 Forestry – 004 Research – State’s Expenditure – JA  
Forest Research – 16 Major works.  
(DPC :4415 06 004 JA 1605)”

4. The Principal Chief Conservator of Forests is authorized to draw the amount sanctioned in para 2 above.

5. The Principal Chief Conservator of Forests is requested to ensure that the work to be carried out the purpose of Research are actually meant for that purpose only.

6. This order issues with the concurrence of Finance Department vide its U.O.No.26783/AHD&F/2018, dated:17.07.2018.

**(BY ORDER OF THE GOVERNOR)**

**Md. NASIMUDDIN  
PRINCIPAL SECRETARY TO GOVERNMENT**

To  
The Principal Chief Conservator of Forests  
(Head of the Forest Force), Chennai-15.  
The Accountant General, Chennai-18.  
The Accountant General (Audit), Chennai-18.  
The Accountant General (Audit-II), Chennai-18.  
The Pay and Accounts Office (South), Chennai-35.  
The Director of Treasuries and Accounts,  
Chennai-15.  
The Resident Audit Officer, Chennai-9.

Copy to :

The Principal Chief Conservator of Forests  
(Research and Education), Chennai-127.  
The Finance (AH&F) Dept, Chennai-9.  
The Planning, Development & Special Initiatives Department, Chennai-9.  
SC/SF-1.

/ Forwarded by order /

KARW  
17/7/18  
Section Officer

SL. No.	Unit/Works Proposed	Unit	SFRI, CHENNAI		AFRD, MADURAI		IWRD, TRICHY		Genetics, Coimbatore		MND, Dharmapuri		TOTAL	
			Physical in Ha. / No.	Amount in lakhs	Physical in Ha. / No.	Amount in lakhs	Physical in Ha. / No.	Amount in lakhs	Physical in Ha. / No.	Amount in lakhs	Physical in Ha. / No.	Amount in lakhs	Physical in Ha. / No.	Amount in lakhs
1	New Research Works													
1	Raising Medicinal Plants of 10000 nos in 10x20cm poly bags @ Rs.10/seedlings for sale of Public / Institution	No.	10000	1.00	0	0	0	0	50000	5.00	0	0	60000	6.00
2	Raising of grafted seedlings of Tamarind, Nelli and Naval -5000 nos in Mudpots @ Rs.100/ seedlings for sale to Public/Institution/Farmers	No.	5000	5.00	0	0	500	0.50	500	0.50			6000	6.00
3	Standardization of Tree transplanting technique for Neem Trees (below 90 cm girth) @ Rs. 5000/each	No.	50	2.50	0	0	0	0	0	0	0	0	50	2.50
4	Raising Teak stumps 30000 Nos. @Rs. 3/stump for supply to the department and public	No.	30000	0.90	0	0	0	0	0	0	0	0	30000	0.90
5	Raising tall seedlings of various avenue tree species for sale to Public/Institution in 30x45 cm poly bags-5000 Nos. @ Rs. 75 /seedlings	No.	5000	3.75	0	0	0	0	0	0	0	0	5000	3.75
6	Introduction trial of Hopea parviflora at SFRI 1Ha.	Ha.	1	0.75	0	0	0	0	0	0	0	0	1	0.75
7	Introduction trial of Sapindus trifoliatus at SFRI 1 Ha.	No.	1	0.75	0	0	0	0	0	0	0	0	1	0.75
8	Mass production of economically viable Liquid Bio fertilizers with microbes such as Azospirillum, Azatobactor, Rhizobium, etc.,	LS		2.00	0	0	0	0	0	0	0	0	0	2.00
9	Raising High density NTFP plantations at various research centres with drip irrigation to demonstrate the productivity potential to the visiting public/Farmers etc.,	Ha.	4	6.00	0	0	0	0	0	0	2	3	6	9.00
10	Research on Peripheral planting of Khaya senegalensis in Agroforestry to augment the income potential of farmers	Ha.	3	1.50	0	0	0	0	0	0	0	0	3	1.50
11	Molecular characterisation of superior genotypes of Neem, Sandal and Redsanders	Nos.	3	3.00	0	0	0	0	0	0	0	0	3	3.00
12	Assesment of pesticidal characters of various plant species such as Wadelia chinensis, Andrograpis paniculata and Aristolochia bracteata	No.	3	3.00	0	0	0	0	0	0	0	0	3	3.00
13	Assesment of Shola regeneration and reintroduction in Eucalyptus and Acacia plantations in Nilgiris		0	0	0	0	0	0		2.00			0	2.00
14	Standardization of Nursery technique for 4 Shola species and documentation in Udhagai Research Range		0	0	0	0	0	0	4	1.00			4	1.00

SL. No.	Unit/Works Proposed	Unit	SFRI, CHENNAI		AFRD, MADURAI		IWRD, TRICHY		Genetics, Coimbatore		MND, Dharmapuri		TOTAL	
			Physical in Ha. / No.	Amount in lakhs	Physical in Ha. / No.	Amount in lakhs	Physical in Ha. / No.	Amount in lakhs	Physical in Ha. / No.	Amount in lakhs	Physical in Ha. / No.	Amount in lakhs	Physical in Ha. / No.	Amount in lakhs
15	Standardisation of Nursery techniques in RET species and documenting in Pollachi Research Range.		0	0	0	0	0	0	2	0.50			2	0.50
16	Standardisation of Nursery techniques for Sthala viruksham Trees and assembling in Coimbatore Research Centre.		0	0	0	0	0	0	5	1.00			5	1.00
17	Popularisation of Khaya senegalensis as a suitable avenue species for highways	Km	2	4.00	1	2.00	1	2.00	0	0.00	0	0	4	8.00
18	Propagation of Khaya anthotheca, Kaya senegalensis interspecific grafting with swietenia macrophylla and air layering at harur Modern Nursery Centre.	LS	0	0	0	0	0	0	0	0	0	1.50	0	1.50
19	Progeny trial of Neem with best timber quality and Sapindus emarginatus having best fruiting quality	No.	2	2.00	0	0	0	0	0	0	0	0	2	2.00
20	Research economical production of bio dishwash using Sapindus emarginatus pulp.	No.	1	0.90	0	0	0	0	0	0	0	0	1	0.90
21	Genetic combing of some important species of Secondary Timbers	No.	75	0.50	0	0	0	0	75	0.5	0	0	150	1.00
22	Collection of superior quality seeds for research purpose and also to supply to Forest Department, farmers and other agencies	LS		0.50	0	0	0	0	0	5.00	0	0	0	5.50
23	Mass production of Vermi compost from the bio wastes like twigs, leaf litters generated in Research centres	No.	1	2.50	0	0	0	0	0	0	0	0	1	2.50
24	Study on Genetic evaluation of red sanders through biometric studies	LS			0	0	0	0	0	0	0	2.00	0	2.00
25	Germplasm assemblage of lesser known timber Albizzia odoratissima in the research centres of modern nursery division	LS			0	0	0	0	0	0	0	2.00	0	2.00
26	Establishing CSO's and SSO's of site specific tree species near newly established seed centre at M.R.Palayam, Trichy by converting the 1.0hec of land handed over to Modern Nursery Division.				0	0	0	0	0	0	0	0.50	0	0.50
27	Assemblage of Bamboos and Ficus at Amaravathy and Sarcarpthy Research Centres		0	0	0	0	0	0	5	1.00	0	0	5	1.00

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28	Raising and supply of 5000 nos of Secondary Timber species seedlings @ Rs. 20/ seedlings in 16*30 cm Polybags		0	0	0	0	0	0	5000	1.00	0	0	5000	1.00
29	Supply of miscellaneous small size seedlings of 15000 Nos to the department @ Rs. 10/seedling.		0	0	0	0	0	0	15000	1.50	0	0	15000	1.50
30	Creation of fernarium in Coimbatore research range		0	0	0	0	0	0	1	2.00	0	0	1	2.00
31	Creation of high density/high biodiversity spots of 0.3ha at 1m spacing in degraded forest area through Miyawaki forest technique		0	0	0	0	0	0	0.3	1.50	0	0	0	1.50
32	Standardisation of Nursery Technology for Tropical Dry Ever Green Tree Species of 5 Nos	Ha.	0	0	0	0	0	0	5	1.50	0	0	5	1.50
33	Evaluation of <i>Guadua angustifolia</i> and <i>Thyrostachys olivieri</i> in Lokur research centre	ha.	0	0	0	0	0	0	1	1.00	0	0	1	1.00
34	Collection, propagation and assemblage of lesser known wild Fruit trees of Tamil Nadu	species	0	0	0	0	0	0	5	1.00	0	0	5	1.00
35	Study on best planting and irrigation techniques for cultivation of fruit yielding tree crops		0	0	0	0	0	0	0	0.50	0	0	0	0.50
36	Multiplication of teak CPTs from padugai areas using vegetative propagation for progeny trials in farmer fields	Nos.	0	0	0	0	0	0	25	0.75	0	0	25	0.75
37	Introduction trial of <i>Acrocarpus fraxinifolius</i> (1 ha) in eastern ghats to assess the growth performance as an alternate shade crop in coffee plantation	ha.	0	0	0	0	0	0	2	1.00	0	0	2	1.00
38	Evaluation of <i>Artocarpus heterophyllus</i> based agroforestry systems in Tamilnadu and screening of germplasm for secondary timber		0	0	0	0	0	0	10	2.00	0	0	10	2.00
39	Establishment of <i>Gmelina arborea</i> seed stand at Perumalmalai (R) Centre of Melur (R) Range	Ha.	0	0	1	0.75	0	0	0	0	0	0	1	0.75
40	Raising of <i>Ailanthus malabarica</i> as Agro Forestry for Match wood	Ha.	5	3.5	5	3.5	3	2.25	0	0	0	0	13	9.25
41	Collaborative studies (NEW) Medicinal Plants ( <i>Caesalpinia bonduc</i> and <i>Annona muricata</i> ), enhance drought tolerance in medicinal plants and crops in agro forestry species, research on plantation grown timber for Plywood and Particle Board Industry and Identification and promotion of Secondary Timber from Tamil Nadu etc.			15.00						15.00	0	0	0	30.00
	<b>Total</b>			<b>59.05</b>		<b>6.25</b>		<b>4.75</b>		<b>45.25</b>		<b>9.00</b>		<b>124.30</b>

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			Physical in Ha. / No.	Amount in lakhs	Physical in Ha. / No.	Amount in lakhs	Physical in Ha. / No.	Amount in lakhs	Physical in Ha. / No.	Amount in lakhs	Physical in Ha. / No.	Amount in lakhs	Physical in Ha. / No.	Amount in lakhs
II	Ongoing Research Works												0	0.00
1	First year maintenance of 2017-18 plantation and second year maintenance 2016-17 plantation by ploughing, soil working knife weeding, reclearing thinning and watering the plants	Ha.	16	1.60	6	0.60	4.00	0.40	11.00	1.10	2.00	0.20	39	3.90
2	Silvicultural package for the older experiments such as ploughing, soil working, knife weeding, reclearing, pruning, thinning, trenching etc.,	Ha.	5	1.00	10	2.00	10	2.00	5.00	1.00	5.00	1.00	35	7.00
3	Improvement of Tree Park at State Forest Research Institute	LS	0	5.00									0	5.00
4	Maintenance of Orchidarium in Coimbatore Research Centre, Coimbatore.									1.00			0	1.00
5	Collaborative studies (Ongoing) such as Multi-location testing of Gmelina arborea clones, improvement in Swietenia mahagoni, clonal evaluation of Ailanthus excelsa, assessment of population status of threatened medicinal plants, etc.			5.00						7.00				12.00
6	Maintenance of Permanent Preservation Plots established in Udhaigai Research centre 15 ha @ Rs. 30000/ha								15	4.50			15	4.50
	<b>Total</b>			<b>12.60</b>		<b>2.60</b>		<b>2.40</b>		<b>14.60</b>		<b>1.20</b>	<b>0</b>	<b>33.40</b>
III	Supporting works for Research Activities												0	0.00
1	Wages for Plot Mazdoors for day and Night Protection and upkeep maintenance of various Research centres @ Rs.9425/ Month including Pongal Bonus	No.	10	1.13	1	1.10		0.00		0.00	13	14.31	24	16.54
2	Utilization of security personnel for protection of red sanders / sandalwood etc. and engaging drivers (for tractors / other vehicles) / professional / other experts in different works, maintenance, etc. of research centres.			9.56		7.15		1.00		10.23		14.30	0	42.24
3	Wages for skilled assistant: Maintaining the documents and plot files and conducting research on experimental plots										1.00	1.44	1	1.44
4	Wages for Research Assistant @ Rs. 11000/- per month for 12 months and pongal adhoc bonus in Trichy Research range	No.			3	3.96	3	3.96					6	7.92
5	Engaging Technical Assistant in laboratory @ Rs. 23000 / Per Month	No.	1	2.76		0.00	1	2.76	1.00	2.76			3	8.28
6	Procurement of Lab Chemicals / Instruments and Engaging Lab technician	LS		7.00						1.25			0	8.25

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7	Providing new Chain link fencing, Barbed wire fencing, including maintenance.	LS		4.00		3.00		3.00		4.25		4.00	0	18.25
8	Improvement and maintenance of Earthen roads and pathways in all Research centres	LS	0	3.00	0	2.00	0	3.00		2.00		2.00	0	12.00
9	Maintenance of Shola lab in Topslip Research Centre of Pollachi Research Centre									2.00			0	2.00
10	Annual maintenance of laboratory equipments, computers etc.,	LS	0	7.00	0	2.00	0	3.00		5.00		2.00	0	19.00
11	Maintenance of Mist tents and Hardening chamber at various Research Centres including providing Humidifier, Hygrometer, tools, Clonalmultiplication chamber(mist chamber) and equipments etc.,	LS		5.00		2.00		3.00		2.50		2.00	0	14.50
12	Maintenance of tractor			1.00								1.00	0	2.00
13	Providing and improvement of water facilities Research centres like, drip irrigation, rain water harvesting and digging borewell, laying piplines. Maintenance of existing motors and irrigation facilities in all Research Centre	LS		5.00		2.00		5.00		5.00		3.00	0	20.00
14	Improvement of infrastructure in all Research centres	LS	0	5.00	0	2.00		3.00		3.00		2.00	0	15.00
15	Mass Production of Vermi compost from the biowastes like twigs, leaf litters generated in Research Centres	No	1	3.00										3.00
16	Mass production of economically viable Liquid Bio fertilizers with microbes such as Azospirillum, Azatobactor, Rhizobium, etc.,	Ls		2.00										2.00
17	Recognition of Exemplary contribution to forest research by research personal through cash prize and metal for 15 persons @ Rs. 5000/each	No.	3	0.15	3	0.15	3	0.15	3	0.15	3	0.15	15	0.75
18	Providing Solar lighting inside the State Forest Research Institute			4.00										4.00
19	Improvement and Maintenance of Existing Minor Documentation centre at									4.00			0	4.00
<b>Total</b>				<b>59.60</b>		<b>25.36</b>		<b>27.87</b>		<b>42.14</b>		<b>46.20</b>	<b>0</b>	<b>201.17</b>

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IV	Research Documentation and Extension Activities													
1	Research communication and documentation of research activities like Newsletters, and ARR publication / Monograph etc.,	LS	0	4.13	0	1.00	0	1.00	0.00	1.00	0.00	1.00	0	0.00
2	Conducting refresher course for field staff, exposure visits to other Institutions for learning latest trends in modern research techniques etc.,	LS	0	3.00	0	1.00	0	2.00	0.00	2.00	0.00	2.00	0	10.00
3	Conducting workshop and celebrating 100th year of Forest Research at SFRI	L.S	0	5.00	0	0.00	0	0.00	0.00	0.00	0.00	0.00	0	5.00
4	Maintenance and erection of information / Publicity boards in all Research centres	L.S	0	2.00	0	1.00	0	2.00	0.00	2.00	0.00	1.00	0	8.00
	<b>Total</b>			<b>14.13</b>		<b>3.00</b>		<b>5.00</b>		<b>5.00</b>		<b>4.00</b>	<b>0</b>	<b>31.13</b>
	<b>Grand Total</b>			<b>145.38</b>		<b>37.21</b>		<b>40.02</b>		<b>106.99</b>		<b>60.40</b>		<b>390.00</b>

MD. NASIMUDDIN  
PRINCIPAL SECRETARY TO GOVERNMENT

(Two copy)

KARUNY  
SECTION OFFICER