



### ABSTRACT

Animal Husbandry Department – Implementation of State Fodder Development Scheme during the year 2019-20 for augmenting fodder production across the State – Administrative and Financial sanction for Rs.25.00 crore – Sanctioned - Orders issued.

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Animal Husbandry, Dairying and Fisheries (AH-4) Department

G.O(Ms)No.125

Dated: 05.09.2019

Thiruvalluvar Aandu 2050

விகாரி, ஆவணி 19

Read:

1. G.O (Ms) No.185, Animal Husbandry, Dairying and Fisheries (AH-4) Department, dated: 3.10.2018.
2. From the Director of Animal Husbandry and Veterinary Services Letter Roc. No. 20733/FD1/2019, dated: 20.05.2019.

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ORDER:

In the Government Order first read above, inter-alia orders were issued sanctioning a sum of Rs.25.00 crore (Rupees Twenty five crores only) for implementation of "State Fodder Development Scheme" for the year 2018-19 for the purpose for augmenting fodder production across the State.

2. In the Budget Speech 2019-20 among other things it has been announced that Rs.25.00 crore has been allocated for the Fodder Development Scheme during the year 2019-20.

3. In the letter second read above, the Director of Animal Husbandry and Veterinary Services has stated that considering the needs of dairy farmers and small livestock keepers with limited land resource, there is a need to improve productivity per unit land area through integration of fodder crops in the cropping system for round the year supply of green fodder. Hence it is proposed to undertake cultivation of 3-4 fodder crop varieties as mixed/inter/sequential cropping in minimum 10 cents and about 5000 acres will be cultivated across the State. As majority of livestock population is concentrated with the small / marginal farmers in rainfed areas, it is proposed to distribute cereal fodder sorghum along with leguminous fodder cowpea seeds and about 28000 acres is proposed to be brought under rainfed agriculture. Further it is proposed to encourage farmers/rural youth to take up green fodder production as a commercial venture, instilling the thought "Fodder is highly profitable and can be taken



up as an agribusiness" by assuring guaranteed procuring mechanism and stable pricing through Tamil Nadu Co-operative Milk Producers Federation Limited (TCMPF). The Director of Animal Husbandry and Veterinary Services has further stated that to ensure availability of green fodder throughout the year in the farms it is proposed to cultivate Fodder Sorghum in gross cropped area of 600 acres at District Livestock Farm, Chettinad and green fodder production in 30 acres at District Livestock Farm, Ooty. Further to assure supply of fodder seeds of improved varieties/hybrids to farmers at a reasonable price is crucial for enhancing fodder production, it is proposed to undertake seed production in 155 acres in 3 Departmental farms and in one Fodder seed production Farm, Padappai. Through this intervention, approx. 43.80 MT of Fodder Sorghum Co(Fs)29 seeds will be produced which would help to cover 22000 acres under green fodder during subsequent years.

4. The Director of Animal Husbandry and Veterinary Services has also stated that a sum of Rs.14.21 Crore has been proposed for allocation of the project "Establishment of Integrated Livestock Park" at Chinnasalem, based on the announcement made by Hon'ble Chief Minister under Rule 110.

The Abstract of the proposal is detailed below:-

Sl. No	Name of Component	Target	
		Physical	Financial (Rs in crore)
1	Intensive Fodder Production through promotion of Sustainable Fodder Production Model under Irrigated condition	5000 acres	2.750
2	Cultivation of Fodder Sorghum and Fodder Cowpea under rain fed condition	28000 acres	2.912
3	Promotion of Fodder Production as Commercial enterprise by assured buy back	50 acres	1.645
4	Augmentation of Green Fodder at District Livestock Farm, Chettinad and District Livestock Farm , Ooty	630 acres	2.650
5	Fodder seed Production in departmental Farms	155 acres	0.702
6	Information, Education, Communication and Contingencies	Lumpsum	0.221
7	Fund (allocation for establishment of Salem Integrated Livestock Park at Chinnasalem( <b>Announcement made by Hon'ble CM under Rule 110</b> ))		14.120
		<b>Total</b>	<b>25.000</b>



5. The Director of Animal Husbandry and Veterinary Services has therefore requested the Government to sanction a sum of Rs.25.00 Crore for implementation of the State Fodder Development Scheme 2019-20 and to permit him to procure the required quantum of seeds directly from Departmental Farms/ Krishi Vigyan Kendras/ Tamil Nadu Veterinary and Animal Sciences University / National Seed Corporation/ any other Government Organization/ institutions depending on availability of seeds exempting tender procedures under the provision of clause 16(f) of Tamil Nadu Transparency in Tenders Act, 1998 to ensure timely and quality supply of seeds to the farmers.

6. The Government have carefully examined the proposal of the Director of Animal Husbandry and Veterinary Services and accord Administrative and Financial sanction for a sum of Rs.25.00 crore (Rupees Twenty five crore only) for implementation of "State Fodder Development Scheme" for the year 2019-20 for the purpose for augmenting fodder production across the State.

7. The Director of Animal Husbandry and Veterinary Services is permitted to take up the proposed activities immediately as per the guidelines annexed to this order so as to ensure continuous availability of green fodder in the State at village level thereby preventing depletion of cattle wealth in the State. The Director of Animal Husbandry and Veterinary Services is also permitted to procure the required quantum of seeds directly from Departmental Farms / Krishi Vigyan Kendras / Tamil Nadu Veterinary and Animal Sciences University for the seeds cultivated / produced by them and also from National Seed Corporation for the seeds produced by them depending on availability of seeds exempting tender procedures under the provision of clause 16(f) of Tamil Nadu Transparency in Tenders Act, 1998 (Tamil Nadu Act 43 of 1998) to ensure timely and quality supply of seeds to the farmers.

8. The amount sanctioned at para-6 above shall be debited to the following head of account:-

"2403-00-Animal Husbandry-107-Fodder and Feed Development  
State's Expenditure II - State Fodder Development Scheme - 309  
Grants -in -Aid - 03 Grants for Specific Schemes  
Old (DPC 2403 00 107 JI 0937)  
IFHRMS (DPC 2403 00 107 JI 30903)

9. The Guidelines for implementing the Scheme of State Fodder Development Scheme during the year 2019-20 is appended to this order as annexure.

10. The Director of Animal Husbandry and Veterinary Services is authorised to draw and disburse the amount to all the implementing agencies and to send the Utilization Certificate to the Government and to the Principal Accountant General separately in due course.

11. Necessary notification required under section 16(f) of the Tamil Nadu Transparency in Tenders Act, 1998 will be issued separately by Finance (Salaries) Department.

12. This Order issues with the concurrence of Finance Department vide its U.O No.43602/Finance(Salaries)/2019, dated:05.09.2019.

(BY ORDER OF THE GOVERNOR)

K. GOPAL  
PRINCIPAL SECRETARY TO GOVERNMENT

To

The Director of Animal Husbandry and  
Veterinary Services, Chennai-35.

The Accountant General, Chennai-18/18 (By name).

The Pay and Accounts Officer (South), Chennai-35.

The Pay and Accounts Officer, Madurai.

The Treasury Officer concerned.

The Additional Chief Secretary (FAC) to Government,  
Special Programme Implementation Department, Chennai-9.

All District Collectors/ All District Treasury Officers.

(Through Director of Animal Husbandry and Veterinary Services,  
Chennai-35.)

All Regional Joint Director of Animal Husbandry.

(Through Director of Animal Husbandry and Veterinary Services,  
Chennai-35.)

**Copy to**

The Finance (AHD&F/Salaries) Department, Chennai-9.

Office of the Hon'ble Chief Minister, Chennai-9

Office of the Hon'ble Deputy Chief Minister, Chennai-9

The Senior Personal Assistant to Hon'ble Minister  
(Animal Husbandry), Chennai-9.

The Registrar, Tamil Nadu Agricultural University, Coimbatore.

The Chief Exective Office , Tamil Nadu Livestock Development Agency,  
Chennai - 35.

The Registrar, Tamil Nadu Veterinary and Animal Science University,  
Chennai-51.

The Agriculture Department, Chennai - 9.

The Agriculture Engineering Department, Chennai- 35.

The Managing Director, Tamil Nadu Co-operative Milk  
Producers Federation Limited, Chennai-51.

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

Stock file/Spare copies.

//Forwarded by order//

  
06/09/2019  
Section Officer



ANNEXURE

Annexure to GO Ms.No.125, Animal Husbandry, Dairying and Fisheries (AH4)  
Department, Dated 05.09.2019

STATE FODDER DEVELOPMENT SCHEME 2019-20Preamble:

The livestock sector plays an important role in the rural economy. The importance of livestock in agricultural economy has been well recognized and next to land and irrigation, livestock is the single largest asset class. Even more importantly, livestock provides a major source of supplementary income for a large majority of rural households and this sector is therefore, highly livelihood intensive and provides sustenance during drought and other natural calamities to rural families.

Nutrition is one of the most important factor influencing performance, health and welfare of livestock. Feed and Fodder is the largest input for livestock production, accounting 65-70% of total cost of production and thus any savings in feed and fodder cost would directly contribute to increase in profitability. Green fodder is a cost effective source of nutrients for animals. It is highly palatable and digestible. It also helps in maintaining good health and improving breeding efficiency of animals. Thus, adequate un-interrupted availability of feed and fodder is a pre-requisite for improving the productivity of animals and to make livestock production efficient.

The forage resource in Tamil Nadu is mainly from cultivated forage, crop residue, grazing from pasture and grasslands. The area under fodder crops is 0.09 million hectare which is approximately 1.0% of the total cultivated area as per "Season and Crop Report (Stat Dept). The area under fodder crops has almost remained static for last 3-4 decades, while the area under pasture has been declining over the years due to fragmentation of land, urbanization, variation in quantity and intensity of rainfall etc owing to decreased fodder availability. At present the State faces net deficit of 54% of green fodder and 15% of dry fodder.

To address the gap and to increase fodder availability and accessibility and to improve the livestock productivity, many scientific/technological interventions are adopted in multidisciplinary mode by the Department through implementation of State Fodder Development Scheme since 2011-12. Though, the availability of feed and fodder at village level has improved in the last few years, there still exists a substantial gap between the demand and availability of fodder in the State, particularly during the lean periods. Hence, to ensure adequate availability of fodder year round and to meet the demand of increasing number of livestock, the production and productivity of

fodder crops needs to be enhanced through use of improved fodder seeds. Thus it is proposed to implement State Fodder Development Scheme during 2019-20 with the objective to accelerate production of green fodder through promotion of integrated technologies for increased productivity per unit area and thus ensuring availability of fodder throughout the year.

### Objective

- To introduce sustainable fodder production model to farmers to increase green fodder production and make available the various hybrid varieties of green fodder year round.
- To stress upon the farmers the importance of feeding nutritive green grass and encourage them to stop the primitive practice of feeding only dry paddy straw.
- To bring surplus barren lands/unused agricultural land under cultivation, thereby giving them an additional source of income by providing necessary assistance.
- To make available quality fodder seeds to farmers to enhance green fodder production.
- To reduce the cost of feeding thereby reducing cost of milk production.
- Promotion of fodder production as a commercial enterprise
- Augmenting fodder resources in the livestock farm so as to act as fodder bank during climatic vagaries.

The scheme incorporates the following components / scientific / technological interventions to achieve the stated objective

### Strategies to increase fodder production and its utilization

1. Intensive Fodder production through promotion of sustainable fodder production model under irrigated condition
2. Cultivation of Fodder Sorghum and Fodder Cowpea under Rain fed condition
3. Quality seed Production through Departmental farms
4. Augmenting Fodder production at District Livestock Farms
5. Encouraging farmers to take up green fodder production on commercial line by assuring buy back through TCMPF



## Project Details

### 1. INTENSIVE FODDER PRODUCTION THROUGH PROMOTION OF SUSTAINABLE FODDER PRODUCTION MODEL UNDER IRRIGATED CONDITION

Dairy animal rearing is an inseparable and integrated part of smallholder subsistence farming system. Dairy cattle production in the state is characterized by low productivity levels due mainly to genetic and nutritional constraints. It is a fundamental approach to provide good quality fodder to dairy cattle in sufficient amount to maximize production.

In the current scenario, where competing demands on land, on account of urbanization/Industrialization even expansion of food/cash crops a difficult proposition, the probability of expanding the area under fodder crops is increasingly becoming difficult. Considering the needs of dairy farmers and small livestock keepers with limited land resource, there is a need to improve productivity per unit land area through integration of fodder crops in the cropping system for round the year supply of green fodder producing maximum forage from a small parcel of land. Production of mixed, perennial, multicut, high yielding and protein rich fodder varieties in minimum acreage is the need of the hour.

Hence, under this component, farmers will be encouraged to cultivate Hybrid Napier / Co(Fs)29/Co31 interplanted with Leguminous fodder crops like Desmanthus / Lucerne in minimum 10 cents. In this production system 3-4 varieties of fodder crops are cultivated on same piece of land in a calendar year for continuous supply of fodder to dairy animals. This system ensures increased fodder yield, improvement in forage quality, regular supply of green fodder, efficient utilization of inter row space, improvement in physico-chemical properties of soil, efficient utilization of critical inputs and regular employment generation opportunity to the farmers.

This strategy, *interalia*, envisages supply of quality seeds, extending fodder cultivation to currently fallow and unutilized lands, promoting green fodder production throughout the year.

Out of total 10 cents, grass fodder Co4/Co5 will be cultivated in 4 cents, Perennial Cereal fodder Co(Fs)29/Co31 in 2 cents, annual cereal fodder AFT Maize in 1 cent, annual legume cowpea in 1.5 cents, perennial legume Desmanthus in 1.5 cents and the tree fodder will border the plot. About 9520 Kg of green fodder can be produced per annum through this 10 cent model so as to cater green fodder requirement for minimum 2 animals throughout the year.

Border Plants	
Cumbu Napier grass (Co CN 4) (4 cents)	
Fodder Maize (African tall)(1 cent)	Multicut Sorghum Co FS 29 (2 cents)
Annual legume, cowpea(1.5 cents)	Perennial legume <i>Desmanthus</i> (1.5 cents)

The Farmers selected for fodder cultivation under this component will be provided financial assistance of Rs.550/10 cents as 100 per cent subsidy, as given in the **Table-1** towards cost of inputs for taking up green fodder cultivation

**Table-1**

**Cost of Fodder seeds/ Fodder slips for 10 cents of land.**

SI No	Description	Cost towards seed material (inRs.)
1	Cost required to bring 4 cents under grass fodder cultivation (640 Nos of slips @ Rs 0.50 per slip including transport charges)	320.00
2	Cost towards procurement of Sorghum Co(Fs)29 seeds for 2 cents( 40 gram @Rs.500/kg)	20.00
3	Cost towards procurement of Desmanthus / Lucerne seeds for 1.5 cents( 120gram @Rs.500/kg)	60.00
4	Cost towards procurement of Maize seeds for 1 cents( 160 gram for 3 seasons totally 480 g @Rs.70/kg)	35.00
5	Cost towards procurement of Cowpea seeds for 1.5 cents( 120 gram for 4 seasons totally 480 g @Rs.90/kg)	45.00
6	Cost towards procurement of 100 gram of Subabul/ 100 g of Agathi/ 10g of Murunga seeds for establishment along the bunds in spacing of 2m @ Rs.200/kg	20.00
7	Photographic documentation/Repacking of seeds based on need	50.00
	<b>Total Cost</b>	<b>550.00</b>

Throughout the State, 5,000 acres will be brought under 10 cent sustainable fodder production models under irrigated condition covering a maximum of 50000 beneficiaries with the financial outlay of Rs.2.750 Crore.



**Anticipated Outcome:**

Expected yield from Cumbu Napier Hybrid / CO(Fs)29/ Desmanthes /subabul in 5000 acres @95200 Kg/acre **4.76 LMT/year**

**Modalities in implementation****A. Criteria for eligibility:**

- Farmers who own animals , have land with irrigation facility, are willing to take up cultivation of fodder crops in not less than 10 cents under irrigated condition and willing to maintain for at least 3 years will be selected
- Farmers, who possess leased land with a lease agreement for a period of minimum 3 years and are willing to maintain the fodder plot at least for 3 years under irrigated condition with the above said fodder crops can also be selected for the Scheme.
- For farmers who possess more number of cattle, multiple unit of 10 cents will be considered. However, it will be limited to one acre per individual farmer if he/she has an assured source of water to maintain the crop.
- Priority will be given to the small and marginal farmers, especially of SC/ST farmers who are satisfying the eligibility criteria as envisaged in conditions enlisted above.

**B. Guidelines for Execution of this Component:**

- ✓ The required Fodder Slips can be sourced either locally by the beneficiaries themselves from other farmers or through agencies like Aavin / District Livestock Farms of Animal Husbandry Department.
- ✓ If the fodder slips are sourced locally from the local farmers, the cost towards the slips procured will be settled by the beneficiary and will be reimbursed to the beneficiary through **ECS mode of payment** by the concerned ADAH based on the self-certified vouchers produced by the beneficiary
- ✓ Prior to release of subsidy amount to the beneficiary, the VAS concerned should ascertain the planting of slips in the field. After documenting the work undertaken, the AD shall release the subsidy amount to the farmer.
- ✓ If the fodder slip are sourced from Departmental farms or agencies like Aavin and distributed to farmers, the ADAH will settle the amount to the institution concerned directly.
- ✓ The required seeds shall be procured from NSC/TANUVAS/ depending on availability of seeds directly by this Directorate availing the provision of **section**

**16 (f) of Tamil Nadu Transparency in Tender Act 1998** to ensure timely and quality supply of the seeds.

- ✓ If the entire required quantum of one particular fodder crop seeds is not available in one institution, then the seeds shall be procured from multiple institutions at the rate fixed by the respective institutions irrespective of the difference in the rates between the institutions within the sanctioned amount.
- ✓ If the required quantum of seeds is not available in any of the institutions, then the seeds will be sourced from open market following tender procedures at regional level by respective Joint Director, Animal Husbandry.
- ✓ The modalities regarding the procurement of seeds either by the farmer himself or by the Directorate will be finalized by the Director of Animal Husbandry based on the availability of seeds in the Government institutions.
- ✓ Each Dispensary should maintain a register containing the following particulars.
  - Name of the beneficiary with full address
  - Name of the revenue village
  - Survey No
  - Extent of land brought into cultivation
  - Crop wise date of cultivation
  - Subsidy provided
  - ECS details
- ✓ The Fodder plots will be inspected by RJD/DD(CBFD) / ADAH / VET.SURGEON and the **Deputy Directors will ensure that all the Fodder plots are inspected by any one of the above mentioned officials in a desired proportion** and will submit the inspection report to the Director, Animal Husbandry and Veterinary Services every month. The RJD of the district to conduct regular meetings to ascertain the progress under the scheme

## **2. CULTIVATION OF FODDER CROPS UNDER RAINFED CONDITION:**

Rain-fed agro-ecosystem has a distinct place in our Agriculture, occupying 67 % of the cultivated area, supporting 65% of the livestock population. Livestock plays an important role in the economy in general and sustainable livelihood of poor people of rain-fed agro-ecosystem. Hence, it becomes essential to augment rainfed or unirrigated agriculture to meet the rising fodder demand by ensuring timely availability of improved seed varieties for green fodder augmentation.

It is proposed to bring 28,000 acres of farmer's holdings under rain fed cultivation across the State. The Farmers selected under this component will be provided with leguminous Fodder Cowpea to be intercropped with Cereal Fodder Sorghum to ensure balanced nutritive feeding. The cultivation of fodder crops admixed



with legumes enhance fodder palatability and digestibility. For 0.25 acre, 3 kg of sorghum along with 1 kg of cowpea seeds will be provided to farmers.

Table 2

S. No	Crop	Seed Rate per acre (Kg)	Rate per Kg(Rs )	Quantity required for 28000 acres (MT)	Cost/ 0.25 acres(Rs )	Total Cost for 28000 acres (Rs in Crore)
1	Sorghum	12	50	336	150	1.680
2	Cowpea	4	90	112	90	1.008
3	Transport, Photographic documentation and other contingencies	-	-	-	20	0.224
<b>Total</b>					<b>260</b>	<b>2.912</b>

**Anticipated Outcome:**

Expected yield from Fodder Cereals-Sorghum and Leguminous Fodder-cowpea @ 14 MT/acre

} 3.92 lakh MT

**Modalities of implementation of component 2:**

**A. Criteria for eligibility:**

- Farmers, who own animals, do not have irrigation facilities and are willing to take up fodder cultivation under rain-fed conditions.
- Priority will be given to small and marginal farmers of SC/ST community
- Subsidy will be provided to a maximum of 2 acre/beneficiary

**B. Guidelines for Execution of this Component:**

- ✓ The Fodder seeds will be procured directly from Departmental Farms/National Seed Corporation (NSC) / KrishiVigyan Kendra (KVK)/ TANUVAS depending upon the availability of seeds by the Directorate of Animal Husbandry and Veterinary Services availing the provision of **section 16(f) of Tamil Nadu Transparency in Tender Act 1998**. The Seed Suppliers will supply the seeds to the Districts in the form of kits. The concerned DD, Cbfd will in turn arrange to distribute the seeds to the Blocks based on the target. The settlement of cost against the invoice of the

supplier will be done by the DD, CBFD concerned / Director of Animal Husbandry and Veterinary Services.

- ✓ If the entire required quantum of one particular fodder crop seed is not available in one institution, then the seeds shall be procured from multiple institutions at the rate fixed by the respective institutions irrespective of the difference in the rates between the institutions within the sanctioned amount.
- ✓ Each Dispensary should maintain a register containing the following particulars.
  - a. Name of the beneficiary with full address along with phone numbers
  - b. Name of the revenue village
  - c. Survey No
  - d. Inputs provided
  - e. Extent of land brought into cultivation
  - f. Date of Planting
  - g. Signature of the beneficiary for the receipt of seed.
- ✓ The Fodder plots should be inspected by RJD/DD (CBFD) / ADAH / VET. ASST. SURGEON and the Deputy Directors will ensure that all the Fodder plots are inspected by any one of the above mentioned officials in a desired proportion and will submit the inspection report to the Director, Animal Husbandry and Veterinary Services every month. The RJD of the district to conduct regular meetings to ascertain the progress under the scheme.

### **3. PROMOTION OF FODDER PRODUCTION AS COMMERCIAL ENTERPRISE BY ASSURED BUY BACK:**

Dairy farming and agriculture have been an inseparable parts of a farmer's life in rural Tamil Nadu. Dairying therefore generates additional income to the rural populace. The dairy sector holds high promise as a dependable source of livelihood for the vast majority of the rural poor. The cow or buffalo is fed with the low grade surplus by-products of the farm. In Tamil Nadu, the per capita availability of milk has increased from 164 gm/day during the year 1997-98 to 300 gm/day during 2017-18 which constitutes an increase of nearly 180 per cent. Tamil Nadu stands at 4th position in India in the milk procurement through cooperatives. There is ample scope for increasing production of milk in Tamil Nadu

Milk production and productivity are highly influenced by the feeding regime and fluctuate sharply during the year depending on rainfall patterns and consequently on availability of forages. This seasonal fluctuation in milk production affects both dairy farmers and processors and leads to a scenario that is not conducive for long



term investments by either of them. Milk price fluctuations are largely due to the seasonality in milk supply, with the underlying cause being lack of access to year round quality forages (fresh and preserved). Irregular supply and availability of forages and low quality of forage products undermine the competitiveness of the dairy industry. Deficit of the feed and fodder availability of the desired quality is a major bottleneck restricting growth at desired level. It has been established that the cost of milk production can be significantly lowered by improving feeding systems.

On the demand side, it can be noted that there is a large demand and market for forages by progressive smallholders and medium scale dairy farmers. The demand for forages is high due to a commercialising and growing dairy sector fuelled by high milk prices and growing urbanisation and development of an affluent middle class. The many smallholder and medium scale farmers that are engaged in commercial dairy production are usually unable to grow sufficient quantities of fodder on-farm due to lack of land size, skills and/or capital for mechanisation.

Besides, the current scenario of increased demand for livestock products and increased interest in commercial livestock production (e.g. dairy, beef) leads to increased demand for productivity enhancing inputs. Currently there is a huge gap between actual and potential livestock productivity levels. Feed and fodder supply has become a critical challenge. Shrinkage of traditional grazing areas has caused decreased availability of feed from natural pastures. In addition, there is shortage and high price of agro-industrial by-products and other concentrate feeds. Thus, there is increased demand for affordable and good quality green fodder and improved forage production has a huge potential to fill this gap.

Largely non-commercial status of forage crops and unorganized small market for fodder crops, is putting forage production as a low priority agricultural activity. Hence under this component it is proposed to encourage farmers/rural youth to take up green fodder production as a commercial venture, instilling the thought "Fodder is highly profitable and can be taken up as an agribusiness" by assuring guaranteed procuring mechanism and stable pricing.

Commercial fodder production can serve as source of livestock feed in urban and peri-urban intensive landless ruminant production system, land constrained smallholder farms in rural areas and during drought/ emergency interventions.

As a pilot project, the component will be taken up in 2 districts covering 50 acres. Maximum of 5 acres/farmer will be allotted. The farmers who are willing to cultivate the fodder crops in minimum 2 acres with assured source of irrigation will be

selected. 50% subsidy on cost of cultivation of Cumbu Napier Hybrid for the 1<sup>st</sup> year will be provided so as to encourage the farmers into this avocation. In addition, cost for installation of irrigation system (sprinkler/raingun as per preference of farmers) will be given to farmers at 50% subsidy. Once the crop is cultivated, the farmer will be able to supply fodder continuously for 4 years. An agreement will be made with the farmers and procuring agency. There is utmost need to organize method / result demonstrations and organizing field days showing the monetary gain and benefits of cultivation of high yielding varieties of fodder crops. The farmers selected will be adequately educated/ trained on technical know-how (Staggered method of planting etc) of grass fodder cultivation through TNAU/ TANUVAS so as to harvest the required green fodder on daily basis. When adopting "staggered planting method" in 5 acres, a farmer will be able to harvest minimum 2000 kg (2 MT) daily. The fodder will be procured from these farmers and distributed to milk pourers of TCM PF at 50% subsidized price.

As this component aims in targeting dairy farmers especially milk pourers of Tamil Nadu Co-operative Milk Producers federation limited (TCMPF), the component will be implemented through TCM PF.

**Table 3**  
**Budget Requirement**

S No	Activities	Amount required (Rs in Lakh)
1	Cost towards cultivation of Cumbu Napier grass incl. land preparation, ploughing ,irrigation, harvesting etc @ Rs.20000/acre as 50% subsidy	0.20
2	Installation of micro irrigation system @ Rs.15,000 as 50% subsidy (or) 50% of actual cost whichever is less	0.15
<b>Total</b>		<b>0.35</b>
Total subsidy amount to be provided to farmers to bring 50 acres under green fodder production @ Rs.35000/acre as 50% subsidy		17.50
Approximately around 2000 kg of green fodder can be procured from one farmer (5 acres).From 10 farmers, appro. 20 MT of fodder can be procured daily. Amount required to procure 20 MT daily for 365 days @Rs.2 /kg		146.00
Contingency amount for TCM PF societies		1.00
<b>Total amount required for this component</b>		<b>164.50</b>



**Table: 4**

Amount that will be realized through sale of procured fodder to other farmers @Rs.1/kg (appro. 20 MT/day for 365 days 7300 MT@Re.1.00 (The amount will be remitted in Government Head account)	73.00 Lakh
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**Guidelines for implementation:**

- The component will be implemented through Tamil Nadu Co-operative Milk Producers Federation (TCMPF) and the amount allocated to this component will be transferred to TCMPF for implementation.
- The Districts will be prioritized by the TCMPF officials based on the milk production potential and the demand
- The progressive farmers/rural youth will be identified by the TCMPF officials.
- The farmers who have assured source of irrigation and willing to sell the fodder at the rate fixed by the TCMPF will be selected.
- A detailed agreement formulated by the TCMPF will be signed by the farmer and procurement agency.
- The fodder procured shall be distributed to the milk pourers through MPCs at 50% of procurement cost
- As the crop is perennial fodder and can be maintained for a minimum period of 3 years, the cost for honoring the buyback support during the 2<sup>nd</sup> and 3<sup>rd</sup> year of operation will be met from State resource. Necessary proposal seeking fund will be submitted every year.
- The farmers will also be encouraged to preserve excess fodder by ensiling and the ensiled fodder shall also be procured.
- The detailed modalities for implementation of the component will be laid down by the TCMPF officials on receipt of Government order.

**4. AUGMENTATION OF GREEN FODDER AT DISTRICT LIVESTOCK FARM, CHETTINAD AND DISTRICT LIVESTOCK FARM, OOTY**

A) The main objective of the Departmental Livestock farms is to cater the needs of the farmers by providing superior Germplasm. Livestock requires good quality green fodder in sufficient quantity for expression of full genetic potential in terms of productivity. The nutritive value of feed and fodder has a significant bearing on productivity of livestock. Hence by bringing additional area under fodder crops and thus feeding balanced green fodder, the incidence of delayed breeding and inter calving period are reduced resulting in increased milk production.

The District Livestock Farm, Ooty is a frozen semen producing station and is the main source of semen for Artificial Insemination which is a prime activity of Animal Husbandry Department. The bulls maintained in these farms are superior quality bulls and quality fodder plays a main role on their health and semen producing ability.

This Project will ensure availability of fodder throughout the year in the farm by which animal health will be improved resulting in quality germplasm that can be disseminated to farmers. Besides, the farm will be act as a fodder bank and the surplus fodder will be distributed to the farmers at nominal rate fixed by the Department.

As the DLF, Ooty is located near the fringes of forest area, crops being destroyed by the wild deer population particularly during summer seasons is a distinct possibility. This situation leads to low / zero yield of the crop thus affecting the livestock productivity due to insufficient feeding resources. The measures taken to control the menace like firing crackers, laying of chain link fencing, etc were exercises in futility. Any amount spent in cultivation of fodder crops will be wasted, unless steps are taken to prevent the deer entering the farm premises. The only solution is to raise the "farm protection cover" to minimum 12 ft height. Thus it is proposed to raise farm protection cover in this component.

B) Due to recurrent drought like situation in the State consequent to erratic rainfall patterns, exploration of possibility of procurement of dry and green fodder always recurs during the summer. Considering the need for demand of green fodder, it is proposed to grow fodder Sorghum in 200 acres in DLF,Chettinad and preserve the harvested fodder as baled silage for utilization during the times of need. If the bales are kept intact then the baled fodder can be preserved upto 2 years. The Fodder Sorghum will be cultivated in 3 seasons at DLF,Chettinad and the fodder produced will be preserved as baled silage for distribution to farmers during drought /flood / emergency situation in the State.

**Table 5**

**Budget Requirement**

S.No	Activities	Amount required (Rs in Lakh)
<b>A. DLF,Chettinad</b>		
1	Cultivation of Sorghum in 600 acres (200 acres-3 seasons) @ Rs.20000/acre	120.00
2	Procurement of baling machine to preserve excess fodder as balage for utilization during lean months	9.50



3	Miscellaneous expenditure(POL expenditure for the above machine/Documentation )	2.50
	<b>SubTotal</b>	<b>132.00</b>
<b>B. District Livestock Farm, Ooty</b>		
4	Cultivation of Oats in 10 acres -2 crops @ 45000/acre	9.00
5	Cultivation of Sorghum/Maize in 10 acres @Rs.40000/acre	4.00
6	Farm protection wall to protect the crops from deer (as per PWD estimate)	120.00
	<b>Sub Total</b>	<b>133.00</b>
	<b>Grand Total</b>	<b>265.00</b>

**Anticipated Outcome:**

- Expected yield from Fodder Cereal-Sorghum @ 16 MT/acre(3 seasons) } 9600 MT
- Expected Yield from Oats and maize } 300 MT

**Guidelines for implementation of the component:**

- i. The required fodder seeds will be procured directly from NSC/TANUVAS/Departmental Farm / KVK depending on availability of seeds and at the rates quoted by the institutions exempting tender procedures.
- ii. The land preparation works/reclamation will be carried through Agricultural Engineering Department (AED) /private agencies after obtaining quotation. If the work is undertaken through private agency, then amount quoted by the agency should be less than AED estimate
- iii. The manpower required for cultivation shall be outsourced and rate fixed by the District Collector for daily wages /Agricultural workers shall be paid.
- iv. The fodder baling machine shall be procured by inviting quotations by the Deputy Director. The successful bidder shall be finalized by constituting a committee comprising the Joint Director of the district, an expert from AED of the district, a Professor from Agricultural machinery Department of TNAU and the Deputy Director of the farm.
- v. The farm protection wall work shall be taken up through PWD after obtaining actual estimate.

**5. FODDER SEED PRODUCTION IN DEPARTMENTAL FARMS:**

Seed is the most critical and important input to enhance the production and productivity of the crops. The efficacy of other inputs is largely dependent on availability and timely sowing of quality seeds. Fodder seeds of improved varieties have good germination and vigor, resistance to diseases and have potential to give a

high and stable yield. Therefore, an assured supply of fodder seeds of improved varieties/hybrids to farmers at a reasonable price is crucial for enhancing fodder production.

The primary fodder crops cultivated by the farmers in the State are Perennials like Cumbu Napier Hybrid, Co (Fs) 29, Desmanthes and annuals like Sorghum, Maize, and Cowpea etc. Of these crops except Cumbu Napier all are propagated through seeds. The maize, sorghum and cowpea seeds are annuals and seeds of these fodder crops can be easily produced. In contrary, the crop Co (Fs) 29 which yield good forage per unit area is a shy breeder; hence production of this seed by farmers is difficult leading to non-availability in the market.

In the present scenario of reduction in availability of land, it is essential to propagate the crops like Co(Fs)29 which yield more biomass per unit area to ensure year round availability of fodder . Hence under this component it is proposed to multiply good forage yielding Co(Fs)29/CSV 33MF in 3 Departmental Livestock Farms and one Fodder seed production farm ( ECBF,Eachenkottai, DLF,Naduvur , DLF,Chettinad and Fodder seed production Farm,Padappai) where necessary infrastructure like borewells, godown, seed processing units are already available. The cost towards package of practices for the seed production alone is sought (except for padappai).

With regard to Fodder seed production farm, Padappai, out of two borewells available, one has been completely damaged due to vardha cyclone and could not be put into use. Hence, one number of borewell is proposed for Padappai farm. The fodder seed produced will be distributed to farmers during subsequent years for augmenting green fodder production in the State.

Besides, Breeder seed of sorghum CSV 33MF developed by the TNAU will be used by the Departmental farms to multiply as Foundation seeds (F seeds). These F seeds will be further multiplied as certified seeds and distributed to farmers.

The production of fodder seed materials requires technical expertise to achieve the targeted quality seed production. Hence, to guide and carry out the day to day work on seed production in the above farms a person with Degree/ Diploma in Agriculture will be engaged through outsourcing for one year with the condition that if the Agricultural Officer post vacant in the farm is filled within the year of implementation of the scheme, the service of the person engaged temporarily shall be terminated.



**Table 6**  
**Budget Requirement**

<b>Activities</b>	<b>Unit cost</b>	<b>DLF Chettinad</b>	<b>ECBF, Eachenkottai</b>	<b>DLF, Naduvur</b>	<b>Padappai Seed Farm</b>	<b>Total cost(Rs in lakh)</b>
		50 acres	50 acres	50 acres	5 acres	
Land Preparation (Levelling, ploughing, bund formation etc)	0.05	2.50	2.50	2.50	0.25	7.75
Cultivation cost inclusive, weeding, irrigation, harvesting, cleaning and packing of seeds	0.30	15.00	15.00	15.00	2.00	47.00
Engaging one person with Degree / Diploma in Agriculture through outsourcing for one year@Rs.15,000/month	0.15	1.80	1.80	1.80	0	5.40
Sinking of one borewell and installation of 5 hp motor	10.00	0	0	0	10.00	10.00
<b>Total</b>		<b>19.30</b>	<b>19.30</b>	<b>19.30</b>	<b>12.25</b>	<b>70.15</b>

About 155 acres will be brought under seed production. Out of this 50 acres will be spared for breeder seed multiplication and balance 146 acres will be brought under Co(Fs)29/CSV 33MF seed production.

**Anticipated output:**

Around 43.80 MT of Co(Fs)29/CSV 33MF seeds will be produced @ 300 kg/acre worth Rs.2.19 Crore (Rs.500/kg) .

**Guidelines for Execution of this Component:**

1. The land leveling /reclamation work shall be carried out through AED or through private agencies by obtaining quotation. Since the procedural formalities for floating internal tender for works by AED lead to delay in execution of the schemes, it is left to the discretion of the DDs to take up the work either with AED or private agency. If the work is to be executed through private agencies, then the rate quoted by the agency should be lower than AED estimate.
2. The required seeds shall be procured through NSC/Tamil Nadu Veterinary and Animal Sciences University/KVK/Departmental Farms directly by the Deputy Director of the farm.

3. The labourers for carrying out cultivation works shall be outsourced and daily wages shall be fixed based on the prevailing rates approved by the District Collector.
4. The person to be engaged for taking up the above seed production work shall be outsourced by conducting an interview duly constituting a committee headed by JD(AH),JD(A)/or his representative/ DD,CBFD for technical expertise wherever the Agricultural officer post is vacant in the farm.
5. The Joint Director should recruit a person with BSc(Agri) or Diploma in Agriculture on contract basis @ Rs.15000/month till completion of the scheme or for a period of 12 months or till such time regular Agricultural Officer post is filled up whichever is earlier

#### **6. IEC & Contingency :**

The Farm managers /Agricultural Officers working in the Departmental Livestock Farms need to be updated on latest fodder production techniques to enhance fodder production in the farm for improved animal productivity. Hence it is proposed to impart training at IGFRI, Jhansi, a national Institute under the administrative control of Indian Council of Agricultural Research (ICAR), mandated to conduct basic, strategic, applied and adaptive research development and training in forage production and its utilization.

To create awareness among farmers on silage making, Hydroponic method of fodder production, propagation of Azolla, etc pamphlets on the above will be printed and distributed to farmers. Cost towards purchase of Registers, video graphic documentation of the scheme, collection and preparation of success stories of the scheme etc. as well as any other contingencies including conveyance charges ,cost towards transportation of Hydroponic unit supplied to the VD's during 2018-19 , purchase of stationeries that may arise during implementation of the scheme will be met from this component .

#### **7. FUND ALLOCATION FOR SALEM INTEGRATED LIVESTOCK PARK FROM SFDS 2019-20**

Changing agriculture production practices, globalization of economy, market oriented production system, decentralized form of governance etc, have its impact on livestock production. Livestock husbandry guarantees high quality nutrients from animal proteins, which are indispensable for a balanced diet. To take advantage of the global opportunities to meet the growing demand for milk , meat and egg through



reorganization of the services and business approaches, the **Hon'ble Chief Minister of Tamil Nadu** has made the an announcement on the floor of Assembly on **13.02.2019 under Rule 110** to “**Establish a modern Integrated Livestock Park**” to institute a multi model livestock and poultry farm complex, together with various forward and backward linking units by improving the existing facilities at Sheep farm , Chinnasalem at an total outlay of Rs.396.00 Crore.

The project will provide scope for undertaking extension, research, education, impart knowledge and **incubation of business**. The Integrated Livestock park comprises three major units namely

- i) **Livestock complex unit** which comprises various sub units like livestock units, Fodder Park, Fish production units.
- ii) **Livestock Products Technology unit** comprising Dairy/Meat/Fish processing facility and
- iii) **Extension, Training, Education and Research complex** which encompass skill development centre, R&D facility etc.

The funds for establishment of different units are sourced from various Central and State Schemes. DPR is being prepared through NABCONS. An amount of Rs.14.12 Crore required for establishment of **Fodder Park** in the integrated complex is proposed under SFDS 2019-20. The Fodder Park encompasses Fodder Production center, Integrated Farming Demonstration unit and Waste Management unit.

• **Fodder Production Centre:**

A Livestock Complex consisting of a dairy complex with 250 cows, sheep unit with 1040 sheep and goat unit with 1040 goats are to be established under the Salem integrated Livestock Park project. The fodder requirement for the animals and their progenies to be housed in this complex will be taken care by the fodder park to be established under this project.

In order to exploit the genetic potential of the animals and produce superior germplasm, it is essential that adequate amount of feed and fodder is produced and fed to animals on a sustained basis. Livestock specially require good quality green fodder in sufficient quantity for expression of full genetic potential in terms of productivity.

A fodder park will be established in 50 acres (Grass Fodder in 20 acres, Cereal Fodder in 15 acre & Leguminous fodder in 15 acres) so as to produce various green fodders using different irrigation systems for fodder production, silage making, hay making, distribution and technology diffusion. This unit will also have percolation

ponds and other water recharge structures for optimum and efficient utilisation of water. Silage units, hay making, Azolla units, hydroponic units and vermin compost units will also be components of this park. The park will also provide space for experimentations.

Planting of fodder crops will be taken up following staggered planting model to meet the daily green fodder demand of animals stocked in the farm. To ensure balanced feeding of grass, leguminous and cereal fodder, grass fodder like Cumbu Napier, cereal fodder like Sorghum, Maize and Leguminous fodder like Lucerene/Desmanthes/ Cowpea/Stylo will be cultivated.

As indigenous animals and sheep/Goat are to be stocked, it is essential to develop good pasture for better livestock production. An area of 250 acres is to be developed into silvipasture. Silvipasture is the intentional combination of trees, forage plants and livestock together as an integrated, intensively managed system. Cenchrus along with the legume stylo will be sown. In the alleys, tree fodder like agathi, kalyanamurungai, neem, glyricidia, subabul will be raised.

The excess fodder produced will be sold to farmers in and around the area at nominal price. The farmers will be encouraged to propagate the fodder crops in their own holdings by distribution of slips at nominal price.

The Farmers are in need of diverse range of information to adopt latest and improved technologies viz. improved agronomic practices, Hydroponic fodder production, Vermicomposting, Silage making, etc to sustain their animal husbandry activities. There is utmost need to organize "method / result demonstrations" and organizing "field days" showcasing the monetary gains and benefits of cultivation of high yielding varieties of fodder crops. Training programs will also be organised to keep the farmers abreast with latest technical knowhow. The Fodder Park will be established by Animal husbandry Department under the guidance of Forage Department, TNAU and TANUVAS.

**Table 7**  
**The budget requirement for establishment of Fodder Park**

Sl. No	Name of the Component	Total cost required (in Lakh Rs)
1	Land preparation incl bush clearance and Levelling in 50 acres	5.00
2	Farm Protection cover – with chain link fencing and RCC pillars (internal fencing)-10 km internal fencing	130.00



Sl. No	Name of the Component	Total cost required (in Lakh Rs)
3	Provision for irrigation sources (surface level tank along with motor, farm ponds), pipeline, sprinkler/Raingun irrigation for for 50 acres	70.00
4	Crop Cultivation including procurement of slips/seeds and labour for 50 acres@Rs.40,000/acre	20.00
5	Establishment of Pasture in 250 acres	30.00
6	Procurement of tractor, Harvester cum chopper and Fodder baling machine	40.00
7	Model Hydroponic model and Vermicomposting unit	4.00
8	Contingency Expenses	1.00
	<b>Total</b>	<b>300.00</b>

- **Integrated Farming Demonstration unit:**

A successful approach to profitable livestock farming depends to a large extent on integrating various other farming activities so as to utilize the wastes of one unit as input for the other unit. This kind of integrated farming minimizes the investment and maximizes the returns. Various concepts of integrated farming will be demonstrated by establishing model units. Recycling of wastes from one enterprise as the input for the other will be the focus of these units. Integration of various agricultural enterprises viz., cropping, animal husbandry, fishery, forestry etc. have great potentialities in the agricultural economy. These enterprises not only supplement the income of the farmers but also help in increasing the family labour employment. The following models of Integrated farming units will be established:

- a. Cattle with Biogas and vermi compost model
- b. Pig cum fish model
- c. Goats cum Desi Chicken model
- d. Poultry cum Azolla model
- e. Duck cum Fish culture
- f. Turkey cum Pasture Land

The unit will demonstrate the efficient use of limited resources by the farmers by integrating natural resources and recycling of waste and risk mitigation through incorporating different livestock & poultry units and diversified product development. The integrated farming demonstration unit will be established at an outlay of Rs.8.62 Crore.

**Table 8: Budget Requirement for IFDU**

S.No	Activities	Cost Required (Rs in Lakh)
1	Establishment of Dairy and Vermicomposting unit	538.53
2	Duck cum Fish culture	120.30
3	Goat cum Desi chicken	125.80
4	Poultry Cum Azolla	27.77
5	Turkey cum pasture land	49.60
	Total	<b>862.00</b>

- **Waste Management System**

The livestock complex is expected to generate around 2 metric tonnes of animal excreta. This can be fruitfully used as manure for fodder development. A waste management system that can convert the organic wastes into valuable manure will be established. In addition, a biogas digester, facility for making cow dung briquettes, bin composting facility for dead birds, powdering machine for sheep and goat manure and an Effluent Treatment Plant (ETP) that can convert the organic wastes into manure will be established. The water and other effluents treated at the ETP will be used for fodder development and non-potable requirements. This unit will be established at a cost of Rs.2.50 crore.

**Table 9: Abstract**

S.No	Units	Amount proposed (Rs in Crore)
1	Fodder Production unit	3.00
2	Integrated Farm unit	8.62
3	Waste management	2.50
		<b>14.12</b>

**CONCLUSION:**

The anticipated outcome from the above interventions is denoted below

**Table 10  
Anticipated Outcome**

Sl. No	Component	Anticipated outcome
<b>Anticipated Green Fodder Production per Year</b>		
1	Intensive Fodder Production through promotion of Sustainable Fodder Production Model under Irrigated condition	4.76 LMT green fodder will be produced
2	Cultivation of Fodder Sorghum and Fodder Cowpea under rain fed condition	3.92 LMT green fodder will be produced



3	Promotion of Fodder Production as Commercial enterprise by assured buy back	7300 MT of green fodder can be procured
4	Augmentation of Green Fodder at District Livestock Farm, Chettinad and District Livestock Farm , Ooty	9900 MT of green fodder will be produced
5	Fodder seed Production in departmental Farms	43.80 MT of fodder seeds will be produced

The abstract of the overall allocation of various Components is as detailed below.

**Table 11**  
**Abstract**  
**Component wise Financial Requirement**

Sl. No	Name of Component	Target	
		Physical (in Acres)	Financial (Rs in crore)
1	Intensive Fodder Production through promotion of Sustainable Fodder Production Model under Irrigated condition	5000	2.750
2	Cultivation of Fodder Sorghum and Fodder Cowpea under rain fed condition	28000	2.912
3	Promotion of Fodder Production as Commercial enterprise by assured buy back	50	1.645
4	Augmentation of Green Fodder at District Livestock Farm, Chettinad and District Livestock Farm , Ooty	630	2.650
5	Fodder seed Production in departmental Farms	155	0.702
6	IEC & Contingency	LS	0.221
7	Fund allocation for establishment of Salem Integrated Livestock Park at Chinnasalem ( <i>Announcement made by Hon'ble CM under Rule 110</i> )		14.120
		<b>Total</b>	<b>25.00</b>

#### **GENERAL GUIDELINES FOR IMPLEMENTATION OF THE SCHEME**

The scheme will be implemented in the districts by Deputy Director, Cattle Breeding and Fodder Development (DD, Cbfd). The overall monitoring is to be done by the Joint Directors of the Districts.

The District collector will conduct a special farmers Grievance Day meeting wherein the scheme details will be explained by DD, Cbfd to motivate the farmers to take up this activity. Adequate publicity should be ensured.

The DD, Cbfd will issue advertisement in 2 local dailies through respective District Collectors enlightening the components sanctioned under

the scheme, the subsidy to be provided and eligibility criteria. The details of the scheme will also be propagated through All India Radio.

#### **SELECTION OF FARMERS:**

- The VAS will recommend the potential beneficiaries as per norms from the list of applications received from the interested farmers.
- The ADAH will scrutinize the list of beneficiaries sent by the VAS and forward it to DD, CBFD after ascertaining the eligibility, which in turn shall get the approval of the District Collector after necessary scrutiny.
- The Assistant Director should ensure that the beneficiaries have savings/current bank account to avail benefits of the scheme.

#### **MODE OF ALLOCATION OF TARGET:**

- District wise target will be allocated by Director of Animal Husbandry and Veterinary Services considering the animal population / area under irrigation/Rainfed /feasibility according to the component.
- The Block wise target will be allotted by the DD, CBFD based on the criteria indicated above.
- The targets within the blocks need not be uniform. The DDs shall use their discretion to exclude areas that are not suitable to implement the component.
- The Director of Animal Husbandry and Veterinary Services may also suitably re-allocate the District wise target based on the need, within the overall State target.

#### **General**

- A minimum of 30% SC/ST beneficiaries should be selected for each component. If eligible SC/ST beneficiaries are not available, then Veterinary Assistant Surgeon should obtain certificate from the respective VAO stating that no eligible SC/ST candidates are available for the particular component. However it is mandatory that the overall district target should cover minimum 30% of SC/ST beneficiaries.
- The Director of Animal Husbandry may be permitted to increase or decrease the target of each component based on the actual unit cost at the time of implementation, within the sanctioned amount.



- o The Director of Animal Husbandry and Veterinary Services may be permitted to divert savings from one component to other component of the scheme and within components, not exceeding the overall financial allocation within the financial year.
  
- o The Director of Animal Husbandry and Veterinary Services may in consultation with Secretary, Animal Husbandry, Dairying and Fisheries, modify any of the above guidelines without altering the financial component if need be, based on the exigencies in the overall benefit of the implementation of the scheme.

K.GOPAL  
PRINCIPAL SECRETARY TO GOVERNMENT

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Section Officer