



# COMMUNITY FARM SCHOOL

# PROJECT GUIDELINES



VAAZHNDHU KAATTUVOM PROJECT





**Operative Guidelines  
for**

---

**Community Farm School**

---

VAAZHNDHU KAATTUVOM PROJECT  
5th Floor, SIDCO Corporate Office Building,  
Thiru. Vi. Ka. Industrial Estate, Guindy, Chennai-32





# TABLE OF CONTENTS

1.	Introduction .....	7
1.1	About the Project – VKP .....	7
1.2	Component 3 - Skills and Jobs Opportunities .....	7
1.3	Sub-Component: Community Based Training and Skilling Provision .....	8
2.	Community Farm Schools (CFS) .....	8
3.	Description .....	9
4.	Objectives .....	10
5.	Target .....	11
6.	Outcomes .....	11
7.	Key Principles .....	12
8.	Indicative List of Activities to be Undertaken at the CFS Level .....	12
8.1	Agriculture .....	13
8.2	Goat rearing .....	13
8.3	Cow rearing .....	13
9.	SPARK .....	14
9.1	Identification and Selection of SPARKs .....	14
9.2	Roles and Responsibilities of SPARK .....	15
9.3	Criteria for Identification of SPARKs (District Level Scrutiny & Approval Criteria for SPARK Selection) .....	16
9.4	Steps Involved in Selection Procedure of SPARKs .....	17
10.	Selection of Trainees .....	18

10.1 Criteria for Identification of Beneficiaries.....	18
11. Training of SPARKs and Trainees at CFS.....	18
11.1 Course Duration.....	19
12. Roles and Responsibilities.....	20
12.1 Roles of State Project Management Unit (SPMU) .....	20
12.2 Roles of District Project Management Unit (DPMU).....	21
12.3 Roles of Block Project Management Unit (BPMU).....	22
13. CFS Process and Responsibilities.....	22
14. Community-Based Organizations (CBOs) .....	24
14.1 Role of CBOs.....	24
15. Proposal for CFS .....	25
16. Fund Flow Mechanism.....	26
16.1 Finance Management Framework .....	26
16.2 Fund Flow Mechanism .....	27
17. Key Process Steps - Community Farm School (CFS) .....	27
17.1 Post CFS.....	31
18. How Does CFS Benefits Community Members .....	32
18.1 Strengthening observation capability and increasing knowledge sharing .....	32
18.2 Minimizing risks in experimenting with new practices .....	33
19. Capacity Building .....	33
20. Monitoring .....	33
20.1 Verification Mechanism.....	34
21. Convergence and Partnerships .....	34
22. Learnings from Pilot Visits .....	35
23. CFS Costing Model Template for Dairy Farm School.....	50
<b>Annexure I</b> .....	52
24. Proposal for CFS .....	52
<b>Annexure II</b> .....	55
25. Cattle Management.....	55
<b>Annexure III</b> .....	65
26. Goat Rearing Technical Solution Areas .....	65
<b>Annexure-IV</b> .....	67
27. Cow Rearing Technical Solution Areas .....	67

## Abbreviations

BIP	- Block Investment Plan
BPMU	- Block Project Management Unit
BTL	- Block Team Leader
CBOs	- Community-Based Organizations
CFS	- Community Farm School
CHC	- Custom Hiring Center
DDS	- District Diagnostic Studies
DEO	- District Executive Officer
DPMU	- District Project Management Unit
ECP	- Enterprise Community Professional
EG	- Enterprise Group
EO S&J	- Executive Officer Skills and Jobs
FGD	- Focus Group Discussion
FPO	- Farmer Producer Organization
IFS	- Integrated Farming System
KVK	- Krishi Vigyan Kendra
MIS	- Management Information System
NACER	- National Centre for Excellence of RSETIs
PC	- Producer Collectives
PG	- Producer Group

PGP	- Participatory Growth Plan
PoP	- Package of Practices
PLF	- Panchayat Level Federation
RSETI	- Rural Self Employment Training Institute
SHG	- Self Help Group
SPARK	- Skillful, Personal ability, Attitude, Resourceful, Knowledge
SPMU	- State Project Management Unit
TANUVAS	- Tamil Nadu Veterinary and Animal Sciences University
TNAU	- Tamil Nadu Agricultural University
VKP	- Vaazhndhu Kaattuvom Project
VIP	- Village Investment Plan
VPRC	- Village Poverty Reduction Committee
VUTRC	- Veterinary University Training and Research Centre



## Introduction

### 1.1 About the Project - VKP

Vaazhdhu Kaattuvom Project (VKP) is a transformative project that looks beyond poverty alleviation by building sustainability and prosperity of rural communities through enterprise promotion, access to finance, and employment opportunities. The project will harness the institutional and knowledge capital for promoting inclusive economic development and growth for a transformative agenda in rural Tamil Nadu.

The project development objective is to “Promote rural enterprises, access to finance and employment opportunities”. This is envisaged through components such as Rural Enterprise Ecosystem Development, Enterprise Business Plan, Skills and Jobs Opportunities in 3994 village panchayats of 120 blocks in 31 Districts of Tamil Nadu.

### 1.2 Component 3 - Skills and Jobs Opportunities

The Skills and Jobs opportunities component is the third component of the project that aims to create (a) Sustainable wage and self-employment opportunities, (b) Promote relevant skills for higher value agriculture and allied activities, and (c) Enable entrepreneurship through market responsive skills and entrepreneurship development.

The project envisaged to develop and deliver training through community-based skilling to build skills of service providers, entrepreneurs, and producer households in targeted value chains; and Improve access to skills training in rural areas, by developing Community Schools.

### 1.3 Sub-Component: Community Based Training and Skilling Provision

The productivity of many farmers who are involved in on-farm and off-farm activities is lower than average and there is a substantial gap in the yields of their crops. To improve their productivity, it is crucial to increase agricultural productivity and promote off-farm rural employment. This requires the acquisition of the necessary skills that will equip them with modern practices, in both farming and off-farm activities.

## 2 Community Farm Schools (CFS)

There can be considerable productivity differences between farmers within the same community, pointing to the importance of factors such as access to knowledge, vital skills, availability of affordable financing, and limited access to markets to sell their yield. The Community Farm School (CFS) model seeks to identify specific skill gaps in farming-related occupations; recommending appropriate technical solutions with the help of field specialists; CFS will identify SPARKs and train them to impart knowledge and skills on best practises to the community; and conduct regular "Farm Schools" through SPARKs and ensure transmission of the identified technical solutions and services to the community households.

Thus, Community Farm Schools primarily emphasize the capacity building of such community members by practicing the required technical skills through skilled community experts.

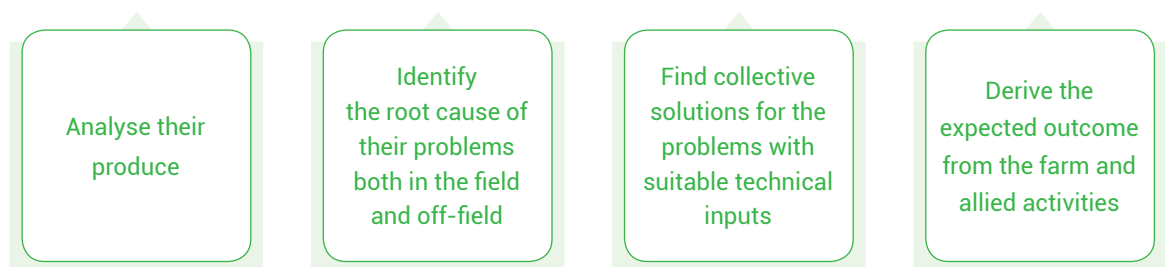
CFS seeks to develop a cadre of technical service providers called as SPARKs means Skilful, Personal Ability, Attitude, Resourceful, and Knowledgeable in selected agriculture and allied sub-sectors, who will in turn build skills amongst the community members in selected value chains through the use of Farm Schools

# 3

## Description

Community Farm School (CFS) has focused on the process of strengthening the farm-based livelihoods by interventions of agroecological practices, improved livestock rearing, and value addition.

The Community Farm School (CFS) is an innovative, participatory and collaborative learning approach that focuses on problem-solving and collective learning to develop farmers' capacity. CFS facilitates community to,



CFS will identify specific skills gaps in farming-related occupations; bringing in required technical expertise to analyse these gaps and recommending appropriate technical solutions; identify and train SPARKs to train in delivering these to the community.

This approach allows the community members to practice new skills by comparing the contemporary and conventional methods. In General, CFS involving a group of farmers ideally including members from 30-36 households. This setup is facilitated by a community professional who demonstrates best practices and supports other farmers in adopting new practices. A CFS can be developed using subjects of agriculture, livestock, forestry, agroforestry, and others.

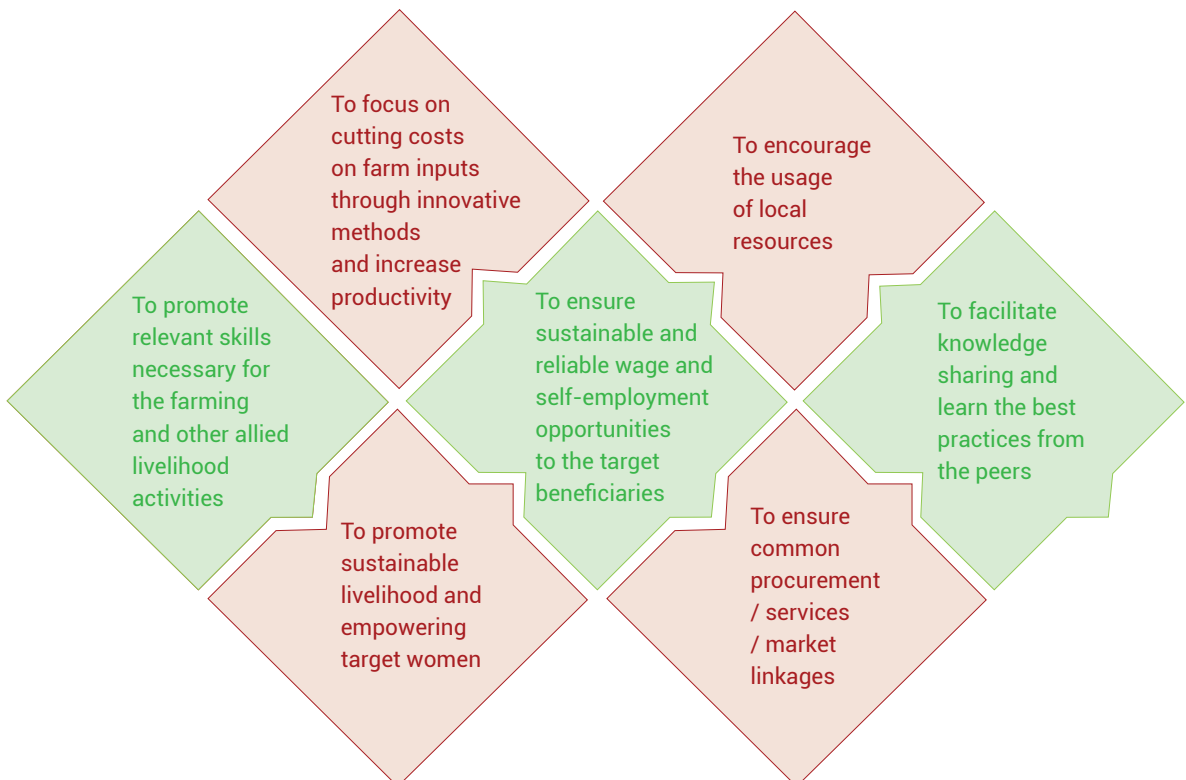
The CFS initiative will work in close conjunction and synergy with the Individual and Group enterprise promoted by the project. The project proposes short-list value-chains. CFS initiatives will be aligned to those value chains that are farm-based (includes off-farm). For example, the domains based on the value chains selected could be agriculture, horticulture (Floriculture & Olericulture), fisheries, dairy, goat rearing, and poultry.



# 4 Objectives

The objectives of the CFS are to develop and roll out the knowledge generated through the project, eventually disseminating the same to the stakeholders. The knowledge generated will be used effectively for project implementation by way of learning and capacity building among the beneficiaries.

To facilitate ample opportunities for cross learnings from the experts through existing models, increase the productivity, reduce the factors affecting the outcome, and obtaining the desired results, which are as follows:



## 5 Target

In total 1,80,000 producers identified by the project are to be trained through community farm schools.

1,80,000 producers who are either part of Producer Group or has willingness to be trained on Package of Practices and technologies like micro-irrigation, precision farming, etc., for higher-value agriculture and allied sectors.

## 6 Outcomes

### The project outcomes targeted through CFS are:

Enabling the rural communities to increase production, productivity and income from farm and off farm activities

Promotion of relevant skills for higher value agriculture and allied activities

Developing a new model by institutionalizing best practices of farm allied activities to ensure increase in income and decrease expenditure

Reducing the mortality rate of farm animals

Eco-friendly livestock waste recycling as manure for enhancing farm profitability

Alternative feed sources during summer and drought.

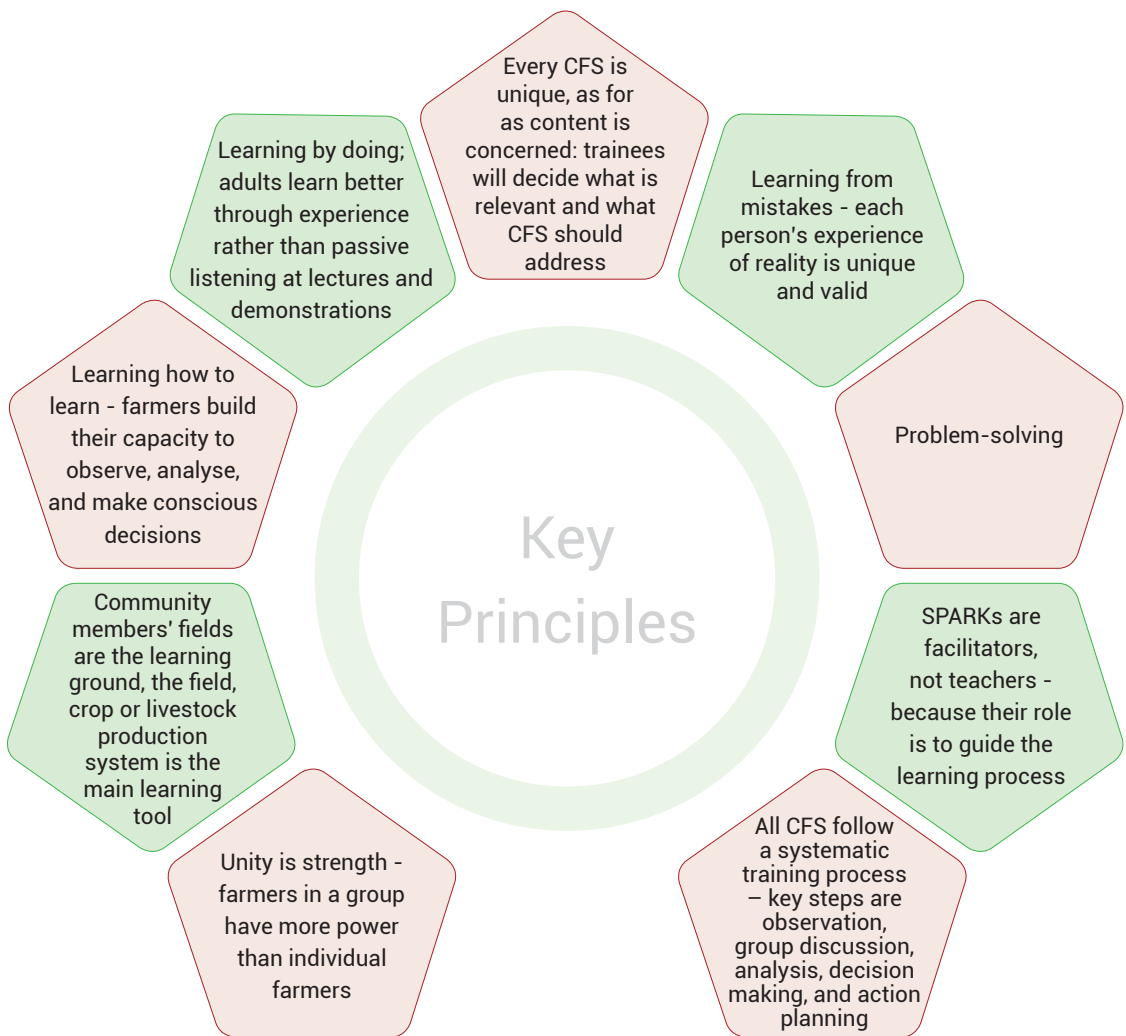
Sustainable Income from the agriculture allied activities

Enabling entrepreneurship through market responsive skills and entrepreneurship development

Providing an alternative for hazardous occupations

# 7

## Key Principles





## Indicative List of Activities to be Undertaken at the CFS Level

All economically viable and environment friendly activities are eligible under CFS subject to appraisal of team constitutes by the DEO with the resource person from KVK/RSETI or other resource institutions identified by the project. Priority will be given to proposals which are eco-friendly, unique and traditional and region-specific.

**CFS will facilitate certain activities at the farm level that are listed below;**

### 8.1 Agriculture

- Soil test
- Water test
- Proper use of fertilizers and pesticides
- Moisture control
- Soil erosion and composition
- Nutrition
- Crop rotation
- Training programs
- Convergence with Govt. agri. Departments and etc.

### 8.2 Goat rearing

- Lesion process
- Fodder nursery
- Deworming
- Disease control
- Shed construction
- Insurance
- Vaccination

- Ethno-veterinary training
- First-aid
- Convergence with animal husbandry departments and etc.

### **8.3 Cow rearing**

- Vet. support
- Identification of mastitis
- Cow shed
- Faecal test
- Feed management
- Value addition
- Ethno-veterinary training
- Green fodder
- Insurance
- Artificial insemination
- Deworming
- Vaccination & disease control
- First-aid
- Convergence with animal husbandry departments and etc.

# 9 SPARK

## (Skilful, Personal Ability, Attitude, Resourceful and Knowledgeable)

SPARKs are community members with unusually high interest in the trade, who also show keenness to teach the community

Community members who are self-motivated with a high interest in the farm sector	He/she will be a practitioner himself / herself, demonstrates, advocates best practice	He/she should be interested to disseminate knowledge and skill actively for the betterment of community farmers within the village and across villages	SPARK should be in a position to dedicate time, deliver Package of Practices (PoP), impart training, conduct field sessions, move across villages, and manages CFS	He/she should be keen to teach the community and should also have good credentials among the community
--	--	--	--	--

### 9.1 Identification and Selection of SPARKs

SPARKs will be identified and engaged at the panchayat/block level by the PG, PLF and BPMU. SPARKs for the particular panchayat/block will be selected based on the top prioritized commodities in the farm and off-farm sector finalized in the Village Investment Plan (VIP) / Block Investment Plan (BIP) in consultation with PG and BPMU. These SPARKs will be trained by the resource person/institutions.

The selection process must be ethical, transparent, and documented. Deserving candidates will be given a fair chance to express their interest through a simple process (i.e., social media/Email/ Hard copy application form).

### 9.2 Roles and Responsibilities of SPARK

- SPARK's role is not just teaching the prescribed curriculum but also ensuring the new practices taught are adopted by the households (trainees).
- SPARK will identify 30-40 household members (per CFS) with high aspirations and willingness to learn and adopt new practices.

- SPARK along with community members develops the design aspects of the Community Farm School, such as venue, time to deliver training sessions to the households, duration, etc.
- SPARK will administer a weekly 2-3 hours session combining in-classroom theory sessions (assisted by Flip Charts and Picture Books with demonstrations).
- Demonstrations would typically be held in members' homes. Over the rest of the week, SPARK will conduct home visits and monitor that members are adopting and implementing the lessons learned.
- SPARK also serves either as a service provider and/or a nodal-point for provisioning of services that may be required like – castration, fodder nursery, farm inputs, etc. as service providers; and for faecal testing, vaccination, deworming, financial loans, etc. as nodal points. Some of them are provisioned via convergence with relevant Govt. departments like Animal Husbandry, Agriculture, etc. All the above services will be provided as paid services, which will be decided by the community.
- Post CFS, SPARK can set up a new CFS in the same or neighbouring panchayats with the support of the project.
- Assist trainees on all aspects of farm management, soil test, water testing, pesticides, cultivation, fertilization, harvesting, soil erosion and composition, disease prevention, nutrition, crop rotation, and marketing.
- Similarly, all aspects of Dairy and Goat rearing such as deworming, vaccination, insurance, castration, fodder, faecal testing, and disease prevention.

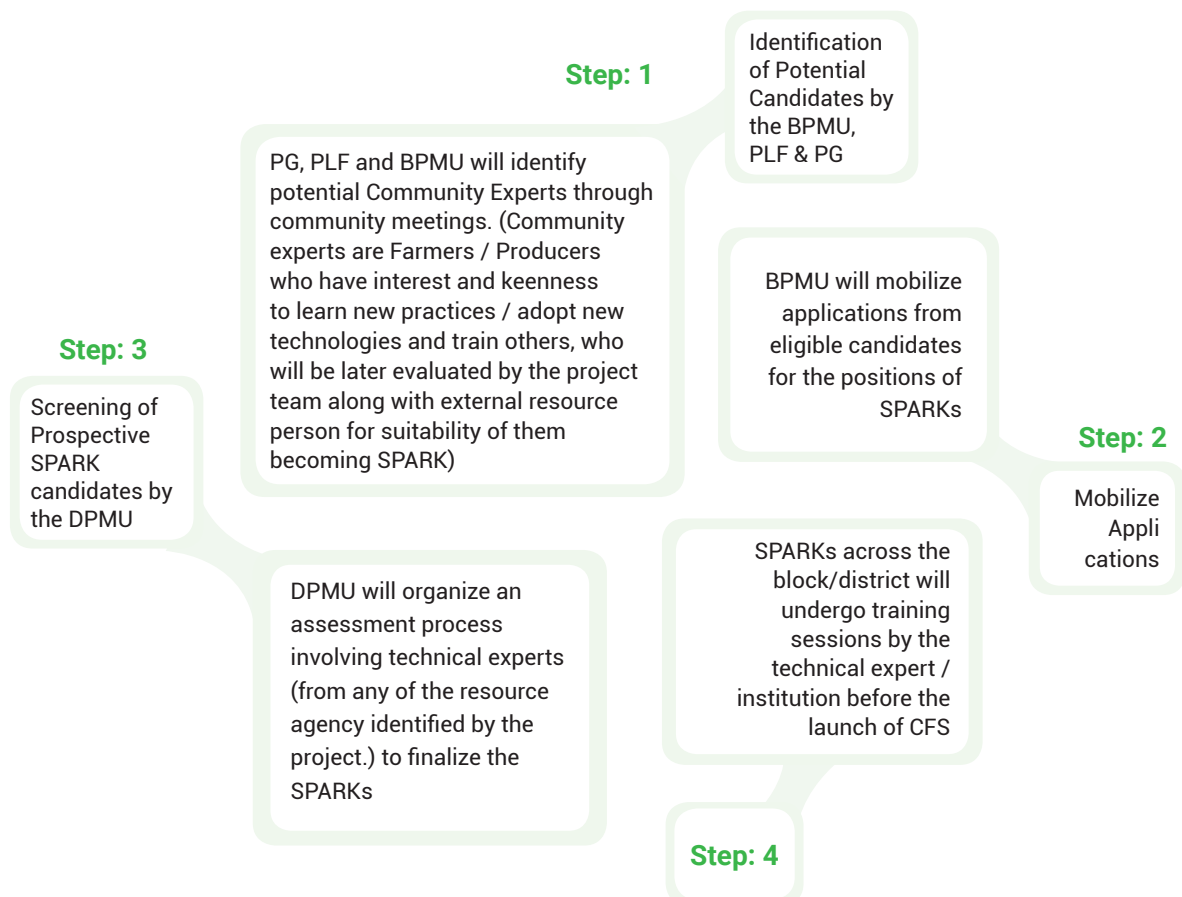
### 9.3 Criteria for Identification of SPARKs (District Level Scrutiny & Approval Criteria for SPARK Selection)

Sl.No	Criteria	Agriculture	Animal Husbandry
1	Minimum Experience	More than 5 years	More than 5 years
2	Gender Specific	Gender Specific: Male / Female (50:50)	Gender Specific: Male / Female (50:50)
3	Age	25-60 Years	25-60 Years
4	Education	Able to read, write & communicate	Able to read, write & communicate
5	Media Exposure	Minimum knowledge to operate smartphone or PC	Minimum knowledge to operate smartphone or PC
6	Field Experience	Should be from a well experienced Farm Family	Should be from well experienced Farm Family
7	Integrated Farming System (IFS) / Legal Compliance knowledge	Should have knowledge of IFS	Should have knowledge of IFS
8	Agri. Extension Officer Contact	Rapport with local Agri./ Horti. Extn. officer	Rapport with local Agri./ Horti. Extn. officer



9	Innovativeness	Ready to accept and adopt new innovative technologies	Ready to accept and adopt new innovative technologies
10	Leadership Quality	Able to treat all communities equally and involve himself/herself in community development	Able to treat all communities equally and involve himself/herself in community development
11	Practitioner	Present Practitioner	Present Practitioner
12	Native Farmer	Should be a member of that village/locality	Should be a member of that village/locality
13	Land / Animal / Workshop Holdings	Own Land / Lease Land	2-5 Animals (Dairy/Goat/ Sheep)
14	Priority	✓ Trained / certified from a recognized training institute ✓ Women ✓ Vulnerable (SC/ST, Differently-abled)	✓ Trained/certified from a recognized training institute ✓ Women ✓ Vulnerable (SC/ST, Differently-abled)

#### 9.4 Steps Involved in Selection Procedure of SPARKs



# 10

## Selection of Trainees

### 10.1 Criteria for Identification of Beneficiaries

Member of a producer group/ producer having willingness to become a member of a producer group

Producer should be keen to learn and adopt the new practices/ technology

Producer should be a regular practitioner of agriculture / allied activities

Producer should have an unquenchable thirst for knowledge and learning

Producer age should be from 18 years and above.

The membership should be inclusive (65% of women members, 5% Differently abled and Tribal communities should be included)

CFS members belong to the same village or from 2 to 3 adjoining villages



## Training of SPARKs and Trainees at CFS

The training combines the classroom with on-field demonstrations. The Technical expert will ensure SPARKs learn and become good tutors in their communities. The objective of SPARKs is not just teaching the prescribed lesson plans but also ensuring the new practices taught are adopted by the households. In addition to technical lessons given in CFS, a module on basic business skills will also be provided so that they manage costs and sales more effectively and hence will result in more profitability.

**SPARK-Farm:** SPARKs identified from producer group / village will be trained initially for 2-3 days by any of the resource agencies identified by the project. A group of SPARKs from neighbouring villages will be trained by an expert at the cluster / block / district level for half a day over the course of the CFS minimum 4 - 12 Weeks.

**SPARK-Off Farm:** One or two SPARKs identified per village / producer group from a cluster of 10 to 15 villages will be trained initially for 2-3 days by any of the resource agencies identified by the project. A group of 20-30 SPARKs will be trained by an expert at the district / block / cluster level spread over the course of the CFS minimum 4 - 12 Weeks.

As per the National Skill Qualification Frame (NSQF) and National Qualification Register (NAR) a candidate should have undergone minimum of 80 hours of training to be assessed and certified under agriculture sector NSQF Level 3 Category type I / II / III.

### 11.1 Course Duration

The course duration for farm schools varies from farm schools formed for agriculture, livestock, and fisheries.

**CFS - Farm:** The training and service delivery duration for community farm school formed for farm is 4 months with a minimum of 36-hour duration. Apart from this, training can be provided to the producers through a resource agency identified by the project, if required.

**CFS-Off Farm:** The training duration for community farm school formed for off farm is 4 months with a service delivery for 12 months. Apart from this, training can be provided to the producers through a resource agency identified by the project, if required

# 12

## Roles and Responsibilities

### 12.1 Roles of State Project Management Unit (SPMU)

The main function of the SPMU would be to evolve a strategic implementation plan for the unit that would not only give an overall direction but also provide each district with the inputs, guidelines, and support needed for creating a district-level implementation plan. More specifically,

- To frame policies, guidelines, regulations, and rules for the project
- Overall strategic planning, guidance, and management support
- Coordinate with other departments on project issues, whenever identified
- Overall management of strategy and implementation of the project
- Engage with the Government departments to create an action plan to achieve the goals; facilitate the DPMU towards a similar exercise for all districts.
- Join forces with the Dept. of Agriculture, and Dept. of Animal Husbandry at the district level as they can provide important inputs for CFS.
- Making the Community Farm School model a robust model of skilling and developing guidelines, templates and monitoring, and evaluation process for it.
- Facilitating operational plans for DPMU.
- Converting the project target into year-wise, sector-wise, and district-wise action plans.
- Conducting training and workshops at different stages for the DPMUs as required.
- Understanding the needs and gaps in the training initiatives and initiate pilots and special projects.
- Ensuring the agenda is women-friendly and its outcomes potentially benefit them. Also sensitizing the project unit towards the inclusive growth agenda so that the marginalized segments of the communities are given priority.

- Evolve a monitoring and evaluation process and developing reports required for it.

## 12.2 Roles of District Project Management Unit (DPMU)

DPMU would be responsible for planning, implementation, and monitoring of the project activities at the district level. Specifically,

- To prepare District action plan for CFS
- To coordinate the efforts of various departments in the district.
- To organize programs for creating awareness and for the mobilization of community members
- To supervise the Block Project Management Unit (BPMU)
- To prepare a list of entrepreneurship opportunities in the district and nearby areas
- To review the progress every month.
- Resolving cross-cutting implementation issues and maximizing convergence of similar programs
- Developing the Enterprise Community Professionals (ECPs) into an energetic and focused unit providing a crucial link between the community and the community-based skilling.
- Executing an agreement with appropriate institutions.
- Responsible for convergence and partnerships as endorsed by the SPMU

## 12.3 Roles of Block Project Management Unit (BPMU)

The main function of the BPMU would be the social mobilization to reach out to the communities and make them utilize the opportunities provided by the project. Some of the key functions include:

- Regular monitoring of activities in the block
- Regular follow-up with community
- To identify the specific location and beneficiaries for the implementation of the project
- To initiate and supervise CFS
- To identify and monitor ECPs
- To support and encourage the SPARKs to share their knowledge on farm allied activities with community members through the CFS
- To identify the highly interested and self-motivated individuals as 'SPARKs' and resource persons.
- To provide regular progress about the project to the DPMU
- To implement any activities which are recommended by the DPMU and SPMU

# 13

## CFS Process and Responsibilities

### **Step 1: Identification of Project Area**

District Teams will scan panchayats across a block to prospect communities who are keen to launch the CFS.

### **Step 2: Hiring of technical expert**

A suitable technical expert or expert agency with substantial expertise in delivering improved productivity in farms will be identified and hired by the State and District team.

### **Step 3: Field assessments through community interaction**

The technical expert with BPMU will conduct a field assessment of the project intervention area to identify the gaps/challenges

### **Step 4: Problem Identification and Goals**

The technical expert in conjunction with the project team will identify problems that need attention and intervention.

### **Step 5: Developing curriculum and plan for delivery of skills**

Based on the gaps and solution areas, and interaction with the community, project team in conjunction with the technical expert will develop a curriculum.

### **Step 6: Selection of SPARKs**

SPARKs will be identified and engaged at the panchayat / block level by the BPMU.

### **Step 7: Training of Sparks**

SPARKs will be trained initially for 2-3 days at any resource agency identified by the project, followed by the training given by a technical expert.

### **Step 8: Formation of CFS**

PG, SPARKs & ECPs and Panchayat Level Federation (PLF) will identify 30-40 household

members with high aspirations and willingness to learn and adopt new practices.

**Step 9: Baseline survey**

The baseline data will be captured for each of the CFS participating households by the ECPs and SPARKs.

**Step 10: Training of households**

SPARKs will impart both theoretical training and demonstration sessions to the producers at the village level.

**Step 11: Provision of services by Sparks**

SPARKs also serve either as service providers and/or a nodal point for provisioning services.

**Step 12: Evaluation of SPARKs**

SPARKs will be evaluated periodically by the BPMU, ECPs along with the field expert / agency at the end of CFS.

**Step 13: Repeat the Above Process to Scale-up**

Super/Lead SPARKs to become resource persons to expand the number of CFS and provide handholding to Sparks

**Step 14: Capturing Impact data**

Three to six months after the completion of CFS new data is captured against the baseline by DPMU to measure the impact of CFS.



## 14

## Community-Based Organizations (CBOs)

The community-based organizations have been deeply involved in activities that directly impact the livelihood of rural people. These organizations facilitate in bringing a change in the structure of communities, harnessing their resources, and improving the overall development.

CBOs including Producer group and Panchayat Level Federation (PLF) will be involved in the formation of CFS.

## 14.1 Role of CBOs

- Panchayat Level Federation (PLF) will be involved in formation and implementation of the CFS.

- PLF shall execute a tripartite agreement with the SPARK, PLF & DPMU – VKP

- PLF should monitor the CFS and send the status report to BPMU/DPMU

- The CFS will be implemented by the PLF and funds will flow from the DPMU through the PLF to the farm school

- Fund Utilization Certificate (UC) to be submitted before the next release of funds

- For every activity, document in the form of registers, photos/videos, etc., to be maintained by PLF and report to BPMU

- PLF should ensure the proper utilization of funds

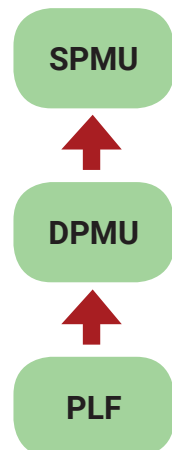
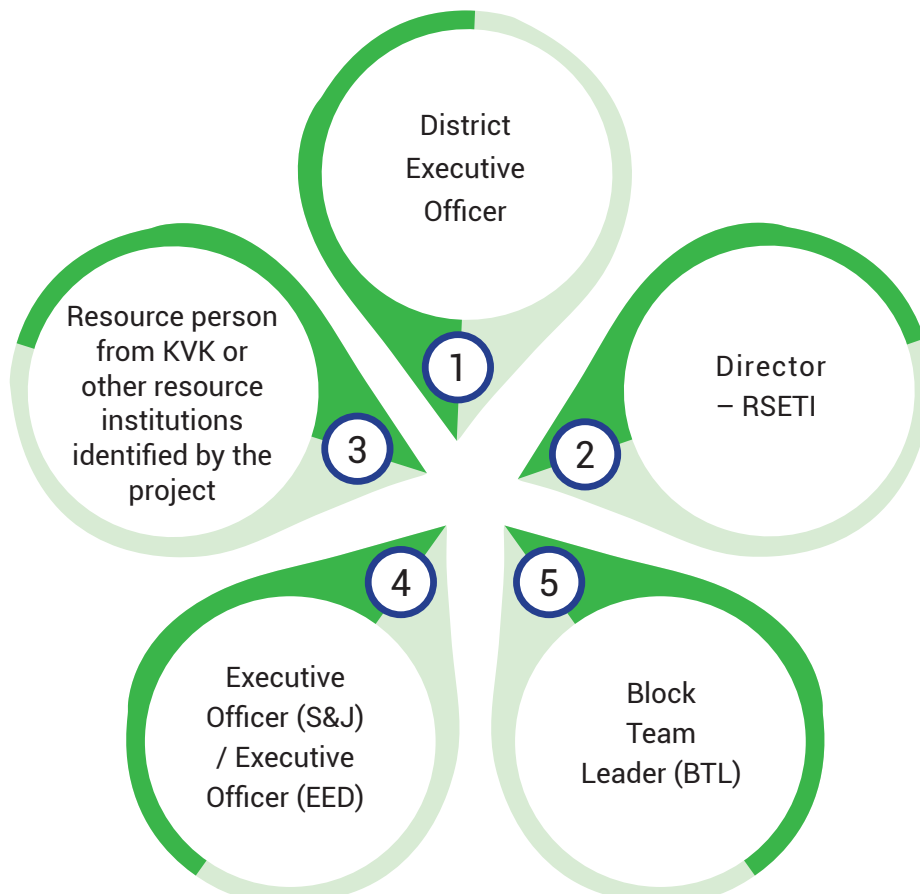
- Awareness creation among community beneficiaries

- The project will provide hand-holding, accounting and technical assistance (bookkeeping, accounting, etc.) to the CBOs through ECPs so that they can maintain accounting records and prepare monthly/annual financial statements

# 15 Proposal for CFS

PLF & BPMU will submit the CFS proposal to the DPMU for the assessment and approval. The DPMU will send the approved proposal to the SPMU for release of funds.

The DEO constitutes a committee to evaluate the CFS proposals. The selection committee to be formed with the below members,



# 16 Fund Flow Mechanism

## 16.1 Finance Management Framework

The financial management framework consists of simplified arrangements to ensure transparency and accountability at all levels of the project's institutional setup.

The financial management framework for the project would involve State Society (SPMU) at the State Level, District Society (DPMU) at the district level, Block Project Management Unit (BPMU) at the block level. The project implementation below the block level is done by PLF, ECPs and SPARKs.

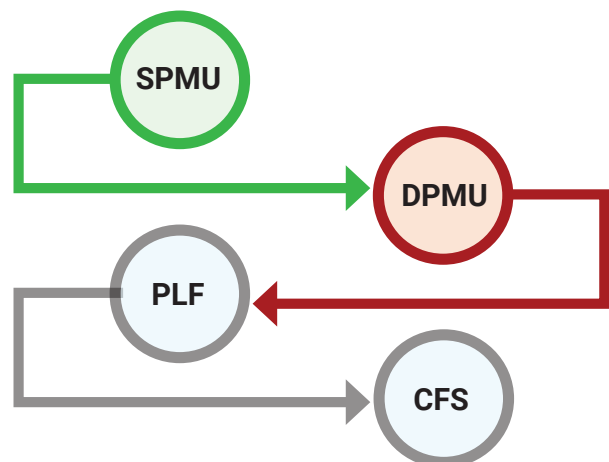
The SPARKs for farm activities will be compensated (Honorarium) for 4 months (Rs. 3000 per month) whereas, SPARKs for off-farm activities (Goat, Cow, etc.) CFSs will be compensated (Honorarium) for the period of 12 months (Rs. 2000 per month) by the PLF.

PLF will submit the proposal to initiate CFS in the village panchayat, SPMU will release 100% of payment to DPMU and DPMU will release 100% of payment to the PLF. The fund Utilization Certificate (UC) will be submitted by PLF to DPMU.

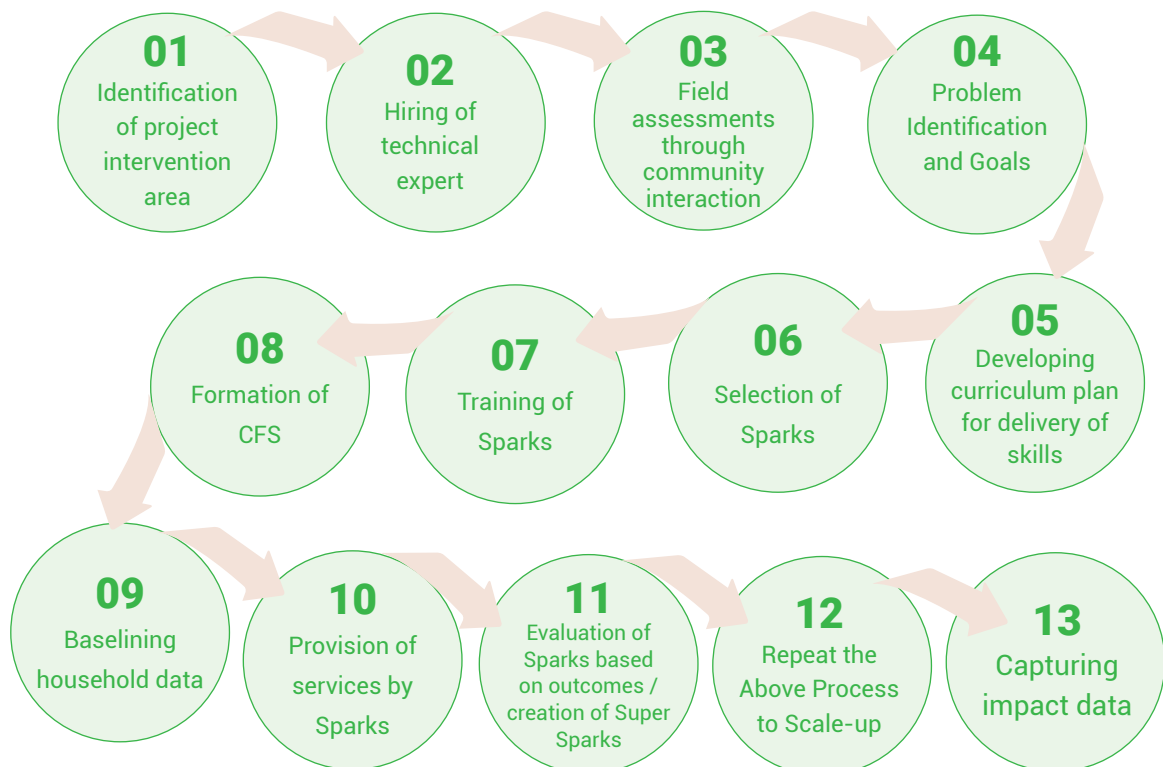
PLF will be required to maintain accounts for funds received under the project. The project will provide hand-holding, accounting, and technical assistance (bookkeeping, accounting, etc.,) to the CBOs through ECPs.

## 16.2 Fund Flow Mechanism

CFS will be implemented by the PLF & BPMU and funds will flow from the DPMU through the PLF to the community farm schools.



# 17 Key Process Steps - Community Farm School (CFS)



## Step 1: Identification of Project Intervention Area

An appropriate region will be identified based on the opportunities and demand for the specific agriculture allied activities, which are conventionally practiced by the community members in that region. They will be identified in close collaboration with the PG, PLF and PC supported through component 1. District teams will scan panchayats across a block to prospect the communities that are keen to launch the CFS. After scanning about 25 panchayats, 10 keenest

panchayats would be selected. The selection of the panchayat will be done by the community based on their demand.

### **Step 2: Hiring of technical expert**

A suitable technical expert or agency, with substantial expertise and motivation in delivering improved productivity in farm-allied activities to work with communities, will be identified and hired.

### **Step 3: Field assessments through community interaction**

The technical expert then conducts a field assessment to identify the gaps/challenges and appropriate technical interventions that could enhance the incomes from farm-allied activities for the targeted community households.

The field assessment includes interactions with 15-20 village communities across 1-2 Blocks of the district. These meetings will serve the purpose of a clear understanding of the problems which are faced by the rural communities in agriculture-related activities.

### **Step 4: Problem Identification and Goals**

The technical expert with the project team will be responsible for identifying the problems, technical interventions, and listing out the skills, which could significantly enhance the productivity of the producers. These will help in forming the curriculum for CFS.

A set of goals will be framed to achieve the same. For instance, Goat rearing CFS may have objectives like less than 5% kid mortality and 30% weight gain in a year. Goat rearing activity may face issues such as Kid mortality, Infection, and Poor housing. These problems have been resulting in substantial losses to the community due to premature mortality or poor weight gain of their goats. Each of the above-mentioned problems can be avoided with simple interventions that could later be converted into lesson plans and imparted to SPARKs, who in turn to farmer households in their villages.

### **Step 5: Developing curriculum and plan for delivery of skills**

The training programs offering the skill training a few hours a week for over three to four months will be planned based on the gaps, interventions, and interaction with the community members. The project team along with the technical expert will develop a curriculum, lesson plans, and delivery strategy.

DPMU/BPMU will make the necessary infrastructure, teaching aids, and kits for the training programs. Training sessions in convergence with relevant Govt. departments such as animal husbandry, agriculture may be organized to improve the quality of the training programs.

### **Step 6: Identification and Selection of SPARKs**

SPARKs will be identified and engaged at the panchayat/block level by the PLF, PG & BPMU. SPARKs for the particular panchayat/block will be selected based on the top prioritized commodities in the farm and Off-Farm sector finalized in the Village Investment Plan (VIP) / Block Investment Plan (BIP) in consultation with PG & BPMU.

### **Step 7: Training of SPARKs**

The training combines the classroom with on-field demonstrations. The Technical expert will ensure SPARKs learn and become good tutors in their communities. The objective of SPARKs

is not just teaching the prescribed lesson plans but also ensuring the new practices taught are adopted by the households. In addition to technical lessons given in CFS, a module on basic business skills will also be provided so that they manage costs and sales more effectively and hence will result in more profitability.

**SPARK-Farm:** SPARKs identified from producer group / village will be trained initially for 2-3 days by any of the resource agencies identified by the project. A group of SPARKs from neighbouring villages will be trained by an expert at the cluster / block / district level for half a day over the course of the CFS minimum 4 - 12 Weeks.

**SPARK-Off Farm:** One or two SPARKs identified per village / producer group from a cluster of 10 to 15 villages will be trained initially for 2-3 days by any of the resource agencies identified by the project. A group of 20-30 SPARKs will be trained by an expert at the district / block / cluster level spread over the course of the CFS minimum 4 - 12 Weeks.

As per the National Skill Qualification Frame (NSQF) and National Qualification Register (NAR) a candidate should have undergone minimum of 80 hours of training to be assessed and certified under agriculture sector NSQF Level 3 Category type I / II / III.

#### **Step 8: Formation of CFS**

SPARKs will then identify 30-40 household members with high aspirations and willingness to learn and adopt new techniques. Together they then develop the design aspects of the Community Farm School, such as venue, time to deliver training sessions to the households, duration, etc.

#### **Step 9: Collection of Baseline Data**

The baseline data will be captured by the ECPs, SPARKs and BPMU for each participating household which will serve as the baseline to measure the impact of the CFS post-implementation.

#### **Step 10: Training of households by SPARKs**

Minimum of 36 hours (2-3 hours session per week spread across 12 weeks) assisted by Flip Charts and Picture Books with demonstrations. Demonstrations would typically be held in trainees' homes. Over the rest of the week, SPARKs will conduct home visits and ensure that members are adopting and implementing the lessons learned.

#### **Step 11: Provision of services by SPARKs**

SPARKs also serve either as service providers and/or a nodal-point for provisioning of the required services such as castration, fodder nursery, farm inputs, etc. as service providers for faecal testing, vaccination, deworming, financial loans, etc. as nodal points. Some of them are provisioned via convergence with relevant Govt. departments like Animal Husbandry, Agriculture, etc. These services will be provided as paid services, which will be decided by the community. The SPARKs will continuously monitor the adoption of practices as taught in the CFS.

#### **Step 12: Repeat the Above Process to Scale-up**

After the first round of CFS is complete in its implementation, the technical expert moves into a mentor role and facilitates the Super SPARKs to take over their role as they become resource

persons to expand the number of CFS and provide ongoing handholding to SPARKs going forward. The SPARKs that have qualified with high scores can continue to be the SPARKs, whom the project will facilitate to scale up the CFS across the district.

### Step 13: Capturing Impact data

Three to six months after the completion of CFS new data is captured against the baseline by the DPMU to measure the impact of CFS.

## 17.1 Post CFS

Post-implementation of CFS following possibilities could emerge:

**1. CFS members as entrepreneurs:** Some of the households could also become entrepreneurs setting up enterprises like feed, veterinary medicines, cattle insurance, sales outlets, etc.

SPARKs can set up new CFS in the same or neighbouring panchayats with the support of the project. Because of the new skills acquired SPARKs can also become service providers dispensing paid services (Eg. Goat rearing –castration, first aid services, etc) which post-CFS the households will begin to value and would require them regularly.

**2. SPARKs as service providers:**

**3. Producer collectives:** Once more than 500 households have been skilled under CFS in the block/adjoining blocks a case for setting up producer collectives like Farmer Producer Organization (FPOs) could be evaluated in conjunction with Component 1C



## 18

## How Does CFS Benefits Community Members

### 18.1 Strengthening observation capability and increasing knowledge sharing

CFS aims to encourage farmers' systematic observation and decision-making based on learning so that new knowledge and practices are generated by the farmers themselves. This process stimulates ownership of the learning process and ensures local adaptation. The main role of SPARKs is to enhance farmers' skills in practicing new ideas, discovering their own solutions, and developing coping strategies to deal with ever-changing situations. As a result, adoption rates are usually high among CFS members. Transfer of knowledge to fellow community members is also common in CFS since learning results are based on farmers' experiences applicable to their fellow group members.

### 18.2 Minimizing risks in experimenting with new practices

CFS provides farmers with the opportunity to try out new practices as an alternative to the traditional methods and compare the outcome to continue with the process.

# 19

## Capacity Building

Capacity building and skilling will be done to the team members at different intervals, from management to implementation of the project. Appropriate technical experts from resource agencies will train the SPARKs to run the CFS.

Experts from Government institutions and Agriculture departments will offer their expertise in specific trades to advance the progress of the trainers as well as trainees through CFS.

# 20

## Monitoring

Monitoring and reporting the progress of CFSs are very essential to track the progress of the initiatives. The project officials will ensure the effective implementation of the CFS training programs. The weekly report on the progress from the CFS will be submitted to BPMU and forwarded to DPMU for assessment and later to SPMU for finalization. The SPMU will provide necessary guidelines and support for monitoring of trainings, including formats. Officials from SPMU will monitor the district-level activities. Officials from DPMU will monitor the block-level activities. The Block Team will monitor the village-level activities, implementation of CFS, ECPs, and SPARKs.

### 20.1 Verification Mechanism

A pre-assessment will be conducted after completing 1/3rd of its timeline to ensure the

progress of CFS. This first step will measure how the trainees reacted or responded to the training. By asking the trainees to complete a short survey will help to identify whether the conditions for learning were present.

Assessment will be conducted to verify whether the beneficiaries practice or implement what they have learned. To assess this, SPARKs will conduct home visits and ensure that members are adopting and implementing the lessons learned.

SPARKs will be evaluated periodically by the BPMU along with the Domain expert/Agency and at the end of CFS will be given a score based on (a) their ability to teach and demonstrate technical solutions and (b) the number of member households that have adopted technical solutions.

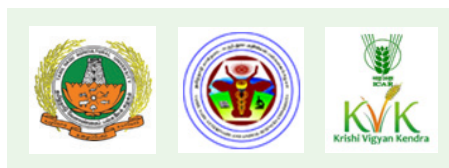
Three to six months after the completion of CFS new data is captured against the baseline by DPMU to measure the impact of CFS

# 21

## Convergence and Partnerships

CFS initiative will establish key partnerships with various stakeholders (public/private) and leverage the expertise of partners to engage in specific win-win opportunities to ensure the profitability of participants and post-project sustainability.

Experts from Government institutions and Agriculture departments such as TNAU, TANUVAS and KVK, etc. will offer their expertise to train the SPARKs and ECPs.



# 22

## Learnings from Pilot Visits

### Preliminary Discussion with Stakeholders at Community Level



### Field Expert Visit – Identification of SPARK







### Planning Meeting with SPARKs



## Community Farm School

### Community Farm School-Session 1



#### **A. Soil Sample Collection for Soil testing**

- 1/2 Feet depth soil has to be collected
- 6 place soil has to be collected
- Each place 1/2 kg should be taken
- Finally 1/2 kg has to be taken
- Self locked olithee cover after proper mixing.
- Should not be collected near to bund

#### **B. Demonstration of Co-Cultivation**

- East West Rows 2 feet gap
- Sowing in 2x2 gaps
- Slips with 2 nodes
- Sowing of slips in 45 degree slop



#### **C. Demonstration of Chaff cutter usage**

- Pieces of green fodder has topbedded
- Pulse crop has to be mixed
- Should be given in separate vessel

## Community Farm School-Session 2

### A. Shed construction place selection

- Open Space should be available
- Own Place should be selected
- Should be in East West Direction

### B. Size of Shed and Provisions

- Minimum Space for one Cow 10ft x 5 ft
- Additional Cows we have add extra 5 ft
- Provision for Water, Feed should be available

### C. Demonstration of FAT and SNF testing

- FAT and SNF testing explained
- Aavin SMS compared with test printout



## Community Farm School-Session 3



### A. Measuring of Length and Girth of Animal

- Measuring Girth and Length explained and Demonstrated
- Age calculation by counting teeth explained

### B. Calculating the weight of the Calf using simplified table

- Standard Chart designed by University introduced and calculated
- Assigned to take measurement in all the members Animals

### C. Simplified test to identify Mastitis

- How to use the testing kit and direction explained
- Treatment for mastitis by Ethnoveterinary treatment taught by Dr. Punniyamoorthy



## Technical Knowledge Transfer at Community Farm Schools

### Examination of Dung Sample

Calf / Milch Animals to identify Nematodes / Round Worms / Flat Worms / Coccidiosis etc, and then give specific treatment.

### Weighing the Animal

By measuring of Length and Girth of the Animal, Weight of the Animal will be calculated (by using a Chart) for vermifugal and medicine dosage.

### Mastitis Identification by new KIT

Identification of Mastitis with Raw milk from Udder using the KIT.

### Mastitis Treatment

Treatment with Ethno medicine - Which was taught by Dr. Punniyamoorthy (Prof & Head, VUTRC - Tanjore) and same knowledge applied by karu Vadatheru Group member and the animal was cured.

### Easy to Chew

Giving of Green Fodder to animal by using Chaff Cutter to prevent wastage of Green Fodder.



## Baseline Survey

S. No	Name of the panchayat union	Name of the cluster	Name of the panchayat/cfs	Herd size				Deworming		Vaccination		Insurance		Mortality				Mastitis		Heifer maturity		
				Male Calves	Female calves	Milch cows	Total	No of cows dewormed	% Of cows dewormed	No of cows vaccinated against prevalent diseases	% Of cows vaccinated against prevalent diseases	No of cows insured	% Of cows insured	No of male calves' mortality in the last five years	% Male calves' mortality in the last five years	No of female calves' mortality in the last five years	% Of female calves' mortality in the last five years	No of milch cow's mortality in the last five years	% Of milch cows' mortality in the last five years		No of animals suffering from mastitis	% Of animals suffering from mastitis
1																						
2																						
3																						
4																						
5																						
6																						
7																						
8																						
9																						
10																						



## Community Farm School Upscaling - Action Plan

S.No	Activity	Location	Month 1		Month 2				Month 3			Month 4				Month 5					Expected Out Come	Participants	Responsibility														
			III Week	IV Week	I Week	II Week	III Week	IV Week	I Week	II Week	III Week	IV Week	I Week	II Week	III Week	IV Week	I Week	II Week	III Week	IV Week																	
1	Planning Meeting with Staff and LH CPs																																				
2	Meeting with concern CLGs for CFS undertaking																																				
3	CLG meeting and New SPARKS Identification at Villages																																				
4	Orientation to New Sparks and Planning meeting																																				
5	CFS - Class 1 (1-4 Sessions) to Sparks																																				
6	CFS - Class 1 (1-4 Sessions) to Members																																				
7	Visiting the Members Households																																				
7	Review with SPARKS																																				
8	CFS - Class 2 (5-8 Sessions) to Sparks																																				
9	CFS - Class 1 (5-8 Sessions) to Members and House visit																																				
10	Review with SPARKS																																				
11	CFS - Class 3 (9-12 Sessions) to Sparks																																				
12	CFS - Class 1 (9-12 Sessions) to Members and House visit																																				
13	Review with SPARKS																																				
14	Impact Study																																				

**CFS Intervention**

**Fodder Plot**

**Before**



**After**



**Cattle Shed**

**Before**



**After**



## Feeding Practices

**Before**



**After**





## Pamphlets – First Aid

### கழிச்சல்

நீரித தூர்நிறமுடைய கழிச்சல் காணப்படும். வால் மற்றும் மேனாங்கொண்டில் காணக்கூடிய பழுது காணப்படும். உடலிலுள்ள நீரிசுத்து மற்றும் தடி உட்புகை அநீகமாக வெளிப்பதி கூற்றுக்கள் மட்டுமே காணப்படும்.

ஒரு மட்டு (அ) மூன்று கூற்றுக்கள் தேவையாகும் ஒலினை மற்றும் பழுதுப் பொருட்கள்

<p><b>கலண்டி - 1</b></p> <ul style="list-style-type: none"> <li>சின்ன சீரம் - 10 சீரம்</li> <li>காசா - 10 சீரம்</li> <li>வெந்தயம் - 10 சீரம்</li> <li>யிளகு - 5 வண்ணக்கை</li> <li>மஞ்சள் - 5 சீரம்</li> <li>பெருங்காயம் - 5 சீரம்</li> </ul>	<p><b>கலண்டி - 2</b></p> <ul style="list-style-type: none"> <li>வெங்காயம் - 2 பம்</li> <li>பூண்டு - 2 பம்</li> <li>கறிவேப்பிலை - 10 கிளை</li> <li>கரும்பு - 100 கீ (வண்ணக்கை)</li> </ul>
<p>மேற்கண்ட பொருட்களை நனிக் கருகும் வரை வறுத்து அரித்து தூசித தடிக்கான வேண்டும்.</p>	

**சிக்சிசா மூன்று (வெப்பியாக)**

நீரித தடி கலண்டிவெந்தயம் கருத்து சீர சீர உருண்டுகளாகக் கம் உடலிலும் (100 சீரம்) தேர்ப்படுத்தித் தூசுகளை சேர்ப்பேர்ப்பான மேல் பகுதியில் தேர்த்த வண்ணம் ஒரே வேலையில் உடனே சேர்த்த வேண்டும்.

ஒலினை பழுதுவம், குறித்த தகவல்கள் மேலான அறியல்களையும், தகவல் பெறாதினில் உடனே நலமுடைய ஒலினை பழுதுவிகள் குறித்த தகவல்களையும் கீழ்க்கண்ட முகவரிக்கு தெரிவிக்கப்பாடு வேண்டும்.

மரபுள்ள ஒலினை வழி காற்று, பழுதுவம் பற்றி மற்றும் ஆய்வகம் அல்ல சிந்திய மரபுள்ள ஒலினை பழுதுவ ஆய்வகத்தில் காற்று, பழுதுவ பரிசீலனைக்கு பற்றி வினாவுக ஆய்வி சினைத் தகவல்கள் - தின சி தேர்ப்பு மருத்துவகம், வண்ண (கருகல்), சினைவகம், தகவல்கள் - 011 40330266 - 04362 - 204009

www.taruvus.org.in      taruvanurvu@taruvus.org.in

### தமிழ்நாடு கால்நடை மருத்துவ அறிவியல் பல்கலைக்கழகம்

#### கறவை மாடுகளில் முத்து உதவி மூலிகை மருத்துவம்

மரபுள்ள ஒலினை வழி காற்று, பழுதுவம் பற்றி மற்றும் ஆய்வகம்

தமிழக அரசு - பகுதி 2 திட்டம்

இந்திய வேளாண் ஆராய்ச்சிக்கழக திட்டம்

மருத்துவ நி.புள்ளியிலுள்ள P. D., தேர்ப்பு மற்றும் தகவல்

மரபுள்ள ஒலினை வழி காற்று, பழுதுவம் பற்றி மற்றும் ஆய்வகம் அல்ல சிந்திய மரபுள்ள ஒலினை பழுதுவ ஆய்வகத்தில் காற்று, பழுதுவ பரிசீலனைக்கு பற்றி வினாவுக ஆய்வி சினைத் தகவல்கள் - தின சி தேர்ப்பு மருத்துவகம், வண்ண (கருகல்), சினைவகம், தகவல்கள் - 011 40330266 - 04362 - 204009

www.taruvus.org.in      taruvanurvu@taruvus.org.in

### மழ வீக்க நோய்

காலம் மாடுகளில் மழ வீக்க நோய் பொதுவாகும் நான்கு சீர சீர ஒரு மரபுள்ள ஒலினை குறிப்பிடுகிறது. மரபுள்ள மழவானது வீக்கமாவும், கலண்டிவெந்தயம், வெந்தயம் அநீகரித்து காணப்படும். பரிசீலனை, காற்று, பழுதுவம் மற்றும் தேர்ப்பு மருத்துவகம் மூலிகை மருத்துவம் குறித்து வினாவுக ஆய்வி சினைத் தகவல்கள் - தின சி தேர்ப்பு மருத்துவகம், வண்ண (கருகல்), சினைவகம், தகவல்கள் - 011 40330266 - 04362 - 204009

ஒரு மட்டு (அ) மூன்று கூற்றுக்கள் தேவையாகும் ஒலினை மற்றும் பழுதுப் பொருட்கள்

<p><b>1. மேற்குக் கருத்துவம்</b> - 250 சீரம் (ஒரு மட்டு)</p> <p><b>2. மஞ்சள்வேல்</b> - 50 சீரம்</p> <p><b>3. கலண்டிவெந்தயம்</b> - 10 சீரம் (ஒரு வெந்தயம், பரிசீலனை)</p>	<p><b>சிக்சிசா மூன்று (வெப்பியாக)</b></p> <p>மேற்கண்ட பொருட்கள் ஒன்றையும் கருகும் உடலில் சிட்டு நன்றாக வெப்பமாக சேர்த்து விட ஒரு கை அல்ல கருத்து தி விட்டு கருத்து நீரித தடிவெந்தயம் மரபுள்ள ஒலினை மற்றும் நன்றாக தடி வேண்டும். தடி ஒன்றாக 10 மூன்று மழ வீக்கம் குறையும் வரை குறைந்தது 5 நாட்களுக்கு பூ வேண்டும். திசுப்பகுதி தடி பழுதுவம் தடிக்கப்பட வேண்டும்.</p>
---	---

### கோமாளி நோய்க்கான ஒலினை மருத்துவம்

(ஒரு மட்டு / மூன்று கூற்று / தகவல் வெளியு / தகவல் வெளியு சீர)

<p><b>வால் வழி மருத்துவம்</b></p> <ol style="list-style-type: none"> <li>1. சீரம் - 10 சீரம்</li> <li>2. வெந்தயம் - 10 சீரம்</li> <li>3. யிளகு - 10 சீரம்</li> <li>4. மஞ்சள்வேல் - 10 சீரம்</li> <li>5. பூண்டு - 4 பம்</li> <li>6. வெந்தயம் - 100 சீரம்</li> <li>7. தேர்ப்பு தகவல் - 1 மழ தேர்ப்பு</li> </ol>	<p><b>கால் வழி மருத்துவம்</b></p> <ol style="list-style-type: none"> <li>1. நெய்யெண்ணெய் - 1 விட்டு</li> <li>2. பூண்டு - 10 பம்</li> <li>3. மஞ்சள்வேல் - 10 சீரம்</li> <li>4. தின சினை - 10 கிளை</li> <li>5. குடிப்பேர் - 10 கிளை</li> <li>6. மஞ்சள்வேல் - 10 கிளை</li> <li>7. வெந்தயம் - 10 கிளை</li> </ol>
---	--

**சொடியுறை**

வீசை வரை 1.2 மற்றும் 3-4 கி தி தி தேர்ப்பு சார வைத்து சேர்த்துவிடும். மேலான வீசை வரை 4.5 மற்றும் 6-7 கி தேர்ப்பு வீசை நன்றாக சேர்த்து விட்டுவிடும். தேர்ப்பு தடிவெந்தயம் மூலிகை மருத்துவம் குறித்து வினாவுக ஆய்வி சினைத் தகவல்கள் - தின சி தேர்ப்பு மருத்துவகம், வண்ண (கருகல்), சினைவகம், தகவல்கள் - 011 40330266 - 04362 - 204009

**வயிறு உப்பாய்**

காற்று, பழுதுவம் உட்புகை அநீகமாகும் நன்றாக கருத்து விடும் மரபுள்ள ஒலினை வழி காற்று, பழுதுவம் பற்றி மற்றும் ஆய்வகம் அல்ல சிந்திய மரபுள்ள ஒலினை பழுதுவ ஆய்வகத்தில் காற்று, பழுதுவ பரிசீலனைக்கு பற்றி வினாவுக ஆய்வி சினைத் தகவல்கள் - தின சி தேர்ப்பு மருத்துவகம், வண்ண (கருகல்), சினைவகம், தகவல்கள் - 011 40330266 - 04362 - 204009

ஒரு மட்டு (அ) மூன்று கூற்றுக்கள் தேவையாகும் ஒலினை மற்றும் பழுதுப் பொருட்கள்

<p><b>வெந்தயம்</b> - 10 வண்ணக்கை</p> <p><b>பூண்டு</b> - 5 பம்</p> <p><b>மேற்கு</b> - 10 வெந்தயம்</p> <p><b>யிளகு</b> - 10 வண்ணக்கை</p> <p><b>வெந்தயம்</b> - 5 பம்</p> <p><b>சின்ன சீரம்</b> - 10 சீரம்</p> <p><b>சிந்தி</b> - 100 சீரம்</p>	<p><b>மஞ்சள்வேல்</b> - 10 சீரம்</p>
---	-------------------------------------

**சிக்சிசா மூன்று (வெப்பியாக)** சின்ன சீரம் மற்றும் யிளகை சிந்து சிந்து மரபுள்ள ஒலினை வழி காற்று, பழுதுவம் பற்றி மற்றும் ஆய்வகம் அல்ல சிந்திய மரபுள்ள ஒலினை பழுதுவ ஆய்வகத்தில் காற்று, பழுதுவ பரிசீலனைக்கு பற்றி வினாவுக ஆய்வி சினைத் தகவல்கள் - தின சி தேர்ப்பு மருத்துவகம், வண்ண (கருகல்), சினைவகம், தகவல்கள் - 011 40330266 - 04362 - 204009

### Problem Identification – Field Visit



### Interaction with Community Experts





### Identification Of Sparks



### Meeting with Stakeholders



### CFS (Goat) Inauguration & Intervention Process



- Lesson Process
- Fodder Nursery
- Deworming
- Shed construction
- Insurance
- Vaccination Camp
- Ethno veterinarian training
- First Aid kit

Implementation cross learning



Mineral Salt Lick Demonstration



Shed Construction



Boomi Pooja For Tree Fodder Nursery Unit





### Method Identification of Anemic Goat



### Castration Demonstration



### SPARKs Intervention



### Impact of Dairy CFS in Pudukkottai

- Cow/Calves life saved by using the First Aid and Ethno Vet training
- New calves are healthy and well cared
- Beneficiaries bought new cows
- Beneficiaries built new cow sheds
- Beneficiaries promoted Green Fodder (C04 and CO FS 29)
- FMD Vaccination, Insurance, Mineral Mixture Usage and Salt licks practiced in all the households
- Own Feed Preparation practice
- CFS beneficiaries started produce sales outlet



## 23

## CFS Costing Model Template for Dairy Farm School

The Cost Elements model for one Community Farm School – Goat Rearing, is given below. The cost estimate for CFS differs based on the domain.

S.No	Cost Element	Budget
1	Testing Dung Samples	
2	De-worming	
3	Vaccination	
4	Mineral Licks	
5	Spark Honorarium and Misc.	
6	First Aid Kit	
7	Medical Camp	
8	Ethno Veterinary Training	
9	Training Expenses	
10	Castration using Elaster	
11	Monthly stipend to Sparks (for 3 + 3 months)	
12	Other Expenses	

### Notes:

1. Cost Element 12 – Other Expenses – is related to costs incurred for Expert fees and allowances, videography, and training content preparation.
2. Cost Elements like 1, 2, 3, 4, 6, 7, and 10 are costs that have been incurred on behalf of the CFS members so that they get the taste of the benefits of these costs. It is expected that subsequent such costs over the life of the goat will be incurred by the CFS members themselves and can be provided as a service by SPARKs.
3. Cost Elements 1, 2, and 3 are normally incurred by Animal Husbandry but many a time needs to be incurred as the right vaccination in the correct dosage may not be available.

---

# Annexures

---

## Annexure - I

24

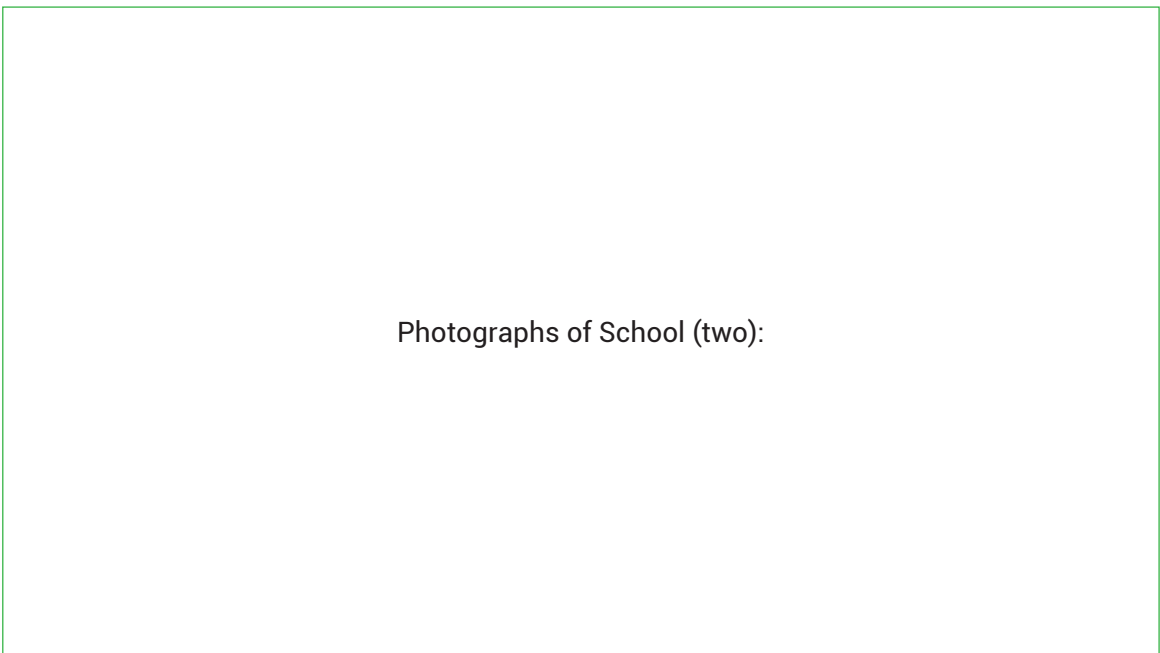
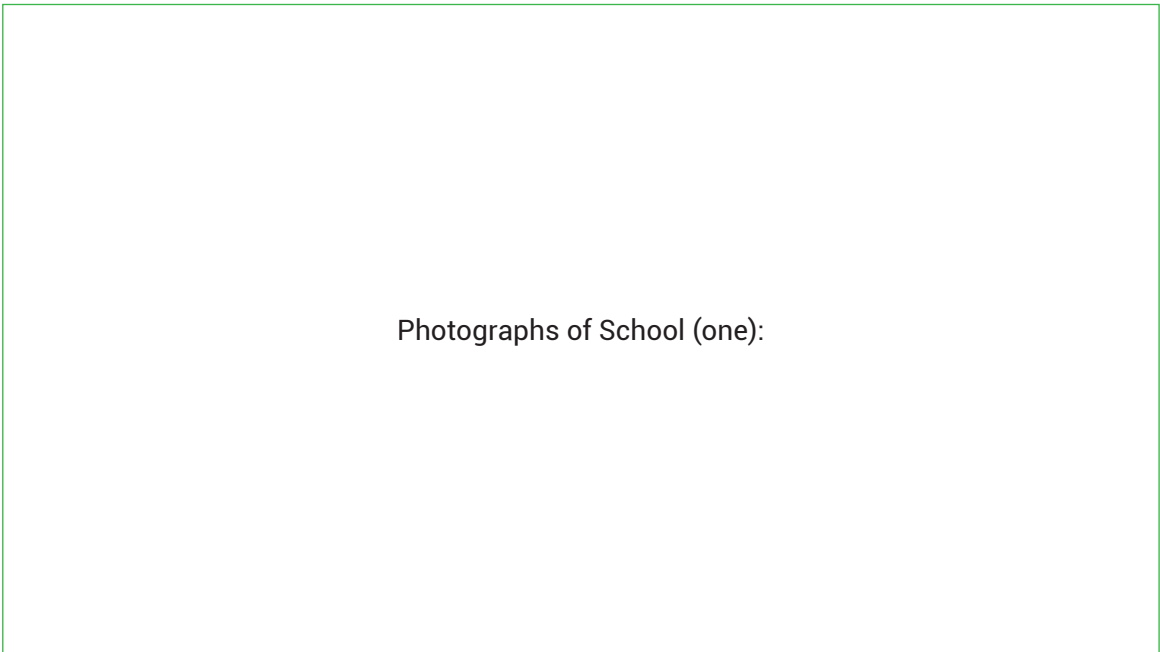
## Proposal for CFS

Name of the District:

Name of the Block:

Name of the Village Panchayat

S.No.	Particulars	Details
1.	Name of the activity	
2.	Location of the CFS	
3.	Name of the Resource Person in-charge	
4.	Contact number of the resource person	
5.	Name of the SPARK	
6.	Contact number of SPARK	
7.	Name of the PLF Representative	
8.	Contact number of PLF Representative	
9.	Launch Date	
10.	Training Details	
	a) Batch size	
	b) Min and Max allowed	
	c) No. of Batches/day	
	d) Duration (in days)	
	e) Hours/day	
	a) Trainer fees/day	
	b) Trainer fees – for the whole program	
	c) Material/Activity	
	1.	
	2.	
	3.	
	4.	
	5.	
	6.	
	Total	
	d) Cost of producer kit	
	e) Incidental expenditure	
12.	Total Cost	



**Signature of the committee members**

1.	District Executive Officer (DEO)
2.	Director – RSETI
3.	Resource person from KVK or other resource institutions identified by the project
4.	Executive Officer (S&J) / Executive Officer (EED)
5.	Block Team Leader (BTL)

.....  
Signature of SPARK

.....  
Signature of PLF Representative

Seal:

.....  
Signature of DEO

Seal:

**\*Required details along with the proposal:**

1. Name list of the training batch
2. Training materials and producer kit details (Nos. & Cost)

## Annexure - II

## 25

## Cattle Management

Sl. No	Main Component	Sub-Component	Things to be Ensured	Ensured during the training	
1	Housing for Cattle (Dairy Animal)	Location of Dairy Buildings	Topography and drainage	A dairy building should be at a higher elevation than the surrounding ground to offer a good slope. Low lands and depressions and proximity to places of bad odour should be avoided.	
			Exposure to the sun and protection from wind	The building should be located to maximum exposure to the sun in the north and minimum exposure to the sun in the south. Protection from prevailing strong wind currents whether hot or cold.	
			Water Supply	Abundant supply of fresh, clean, and soft water should be available at a cheap rate.	
			Electricity	Electricity is the most important sanitary method of lighting a dairy. It is desirable to have an adequate supply of electricity.	
			Surroundings	Areas infested with wild animals and dacoits should be avoided. Narrow gates, high manger curbs, loose hinges, protruding nails, the smooth finished floor must be avoided.	
2	Types of Housing	Loose Housing System	Loose Housing System	Loose housing may be defined as a system where animals are kept loose except milking and at the time of treatment. It is possible to make further expansion without change Facilitate easy detection of animals in heat. Animals get optimum excise which is extremely important for better health production.	
			Cattle Shed (Conventional Type)	Floor	The inside floor of the shed should be of some solid material that can be easily kept clean and dry and is not slippery. Paving with bricks. Ridged cement concrete floor is still better.
				Walls	The inside of the walls should have a smooth hard finish of cement, Corners should be round. Walls about 4 to 5 feet in height. The open space in between supporting pillars will serve for light and air circulation.

			Roof	The roof of the shed may be of asbestos sheets or tiles. A height of 8 feet at the sides and 15 feet at the ridge will be sufficient to give the necessary air space to the cows.			
			Manger	Cement concrete continuous manger with removable partitions is the best. A height of 1"- 4" for a high front manger and 6" to 9" for a low front manger is considered sufficient. The height at the back of the manger should be kept at 2'.6" to 3". An overall width of 2' to 2 1/2' is sufficient for a good manger			
			Passage	The central walk should have a width of 5'-6'. The central walk should show a slope of 1" from the centre towards the two gutters running parallel to each other			
			Feeding Area	The feeding area should be provided with 2 to 2 ½ feet of manger space per cow. 10" wide water channel to provide clean, even, available drinking water.			
3	Feed Management	Feed for Growing Animal	Concentrate & Grass Feed	Age (Month)	Approx. Body Weight	Concentrate Mixture (Kg)	Grass (KG)
				6-9	70-100	1.5-1.75	05-10
				9-15	100-150	1.75-2.25	10-15
				15-20	150-200	2.25-2.50	15-20
				Above 20	200-300	2.50-2.75	15-20
		Adult Cows	When giving green grass plenty	Category	Concentrate Mixture (Kg)	Grass (Kg)	
				Dry Cows	Nil		25 - 30
				Milking	1 Kg for every 2.5 to 3.0 Kg of Milk		30
				Pregnant	Production Allowance + 1 to 1.5 kg from 6 months of pregnancy.		25 - 30
		Adult Cows	When giving green grass plenty	Category	Concentrate Mixture (Kg)	Grass (Kg)	Paddy Straw (Kg)
				Dry Cows	1.25	5	5
				Milking	1.25 + 1 kg for every 2.5 to 3 Kg of Milk	5	5
				Pregnant	Maintenance + production + 1 to 1.5 kg from 6th month of pregnancy	5	5
4	Concentrate Feed	Concentrate Mixture	Recommended Formula	S. No	Ingredients	Kg	
				1	Groundnut Cake	32	
				2	Gingelly Oil Cake	5	
				3	Rice Bran	32	
				4	Yellow Maize	28	
				5	Mineral Mixture	2	
				6	Salt	1	

5	Green Fodder	Types of Green Fodder	Azolla	<p>The farmer should select a shaded pond close to the house and a water source.</p> <p>An area of 4-4.5 m<sup>2</sup> and 10-15 cm deep can produce about 2 kg/d of fresh Azolla, enough to supplement 2 dairy cows.</p> <p>The crop is maintained by application of about 1 kg of cow dung and 80-100 grams of superphosphate every 2 weeks.</p> <p>The first crop should be ready in 15-20 days and can then be harvested daily.</p> <p>2 kg/day fresh Azolla replacing 50% of concentrate for 3 months.</p> <p>Azolla maintained dairy performance while decreasing feed + labor costs by 16.5% and milk production cost by 18.5%.</p>
			CO 5	<p>The Variety yields Green fodder of 20 tonnes/ha.</p> <p>Plant Height is about 95 cm and possesses 2 to 3 branches and 10 - 12 leaves.</p>
			Stylo plant	<p>Stylo reaches a height of 2 meters.</p> <p>It is drought-resistant and a good pasture crop and requires low rainfall.</p> <p>The best season June - Oct months</p> <p>Line Sowing @ 30 x15 cm and required seed rate is 6 to 7 kg/ha.</p> <p>It will harvest 70-75 days after sowing.</p> <p>We can expect a yield of 25 to 40 tonnes/ha/year.</p>
	Green Fodder	Types of Green Fodder	Desmanthus plant	<p>This crop is a perennial one and can grow around the year.</p> <p>The crop can grow in rainfed and irrigated conditions.</p> <p>Seed requires 18-20 kg/ha.</p> <p>The crop will harvest in 3 months.</p> <p>We can expect the yield of 80-90 tonnes /ha/year</p>
			Sorghum	<p>This crop is cultivated for both grain and fodder.</p> <p>Sorghum varieties for irrigation conditions are Co.11, Co.27, and Co.F.S.29.</p> <p>Sorghum Varieties for Rainfed conditions are Co.11, Co.27 and Co.F.S.29, K 7, Co.27 and K 10.</p> <p>Seed Rate 40-45 Kg/Ha.</p> <p>The crop can be harvested after flowering for Green fodder.</p> <p>Each Harvest should be done after 65 days interval (5 Harvest in Year).</p>
			Hybrid Napier	<p>The Main Varieties of Napier grass are Pusa Giant, IGFRI 5, NB 21, NB 37, IGFRI 7, and IGFRI 10.</p> <p>Co.1, Co.2 and Co.3 are also superior varieties suitable for throughout the year.</p> <p>40000 -45000 slips needed to plant in one Hectare.</p> <p>First Cutting should be done in 70-80 Days and subsequent cutting at the interval of 40-45 days.</p>
	Green Fodder	Types of Green Fodder	Guinea Grass	<p>This grass reaches about 5 meters tall and tufted, fast-growing grass.</p> <p>This grass contains crude protein of 4-15%.</p> <p>65000 Slips required per hectare which accommodates spacing of 50 cm x 30 cm.</p> <p>First Cutting should be done in 70-80 Days and subsequent cutting at the interval of 40-45 days.</p> <p>Green fodder yield of 17-180 tonnes/Ha/year</p>



			Subabul	<p>This is one of the fast-growing fodder trees and produces maximum seeds.</p> <p>The main varieties of the grass are Hawaiian giant and Co.1</p> <p>Suitable for rainfed conditions are K 8, Giant Ipil - Ipil, and Co.1</p> <p>The Plant will be ready for the first cutting as early as in 6 months. subsequent cutting carried once in 45-80 days.</p> <p>Under Irrigated conditions, a green fodder of 90-100 tonnes should be obtained.</p> <p>Under Rainfed conditions, 40 tonnes/ha/year should be obtained.</p>																											
	Green Fodder	Types of Green Fodder	Sesbania - Agathi	<p>The leaves of Agathi trees are highly palatable and mostly liked by the Goat.</p> <p>These leaves contain Protein content of 20-25%.</p> <p>The Tree growth can be seen all through the year with good irrigation.</p> <p>Seed Rate 7-8 Kg/Ha.</p> <p>The first harvest should be done in 7-8 months and subsequent harvest at the interval of 70-80 days.</p>																											
			Gliricidia Fodder	<p>Gliricidia sepium and Gliricidia maculata are the two species available</p> <p>These Plants are generally propagated through seed or cutting.</p> <p>The Green Leaves of these trees will supply 2 to 2.5 tonnes/ha</p>																											
6	Animal Health	Vaccination	Anthrax, Black quarter, Foot and Mouth Disease, Haemorrhagic septicaemia	Anthrax spore vaccine, Black quarter vaccine, Enterotoxaemia, Haemorrhagic septicaemia																											
		Diseases	Foot and mouth disease (FMD), Milk fever, Bloat, Mastitis, Anaplasmosis (Schedule of Vaccination)	<table border="1"> <thead> <tr> <th>Diseases</th> <th>Age</th> <th>Interval</th> <th>Month</th> </tr> </thead> <tbody> <tr> <td>FMD</td> <td>3rd Month</td> <td>Every six month</td> <td>June-July</td> </tr> <tr> <td>BG</td> <td>6 Months</td> <td>Every Year</td> <td>Aug-Sep</td> </tr> <tr> <td>HS</td> <td>6 Months</td> <td>Every Year</td> <td>Sep-Oct</td> </tr> <tr> <td>Anthrax</td> <td>6 Months</td> <td>Every Year</td> <td>April-May</td> </tr> <tr> <td>Brucellosis</td> <td>4-8 Months</td> <td>-</td> <td>March-April</td> </tr> </tbody> </table>				Diseases	Age	Interval	Month	FMD	3rd Month	Every six month	June-July	BG	6 Months	Every Year	Aug-Sep	HS	6 Months	Every Year	Sep-Oct	Anthrax	6 Months	Every Year	April-May	Brucellosis	4-8 Months	-	March-April
Diseases	Age	Interval	Month																												
FMD	3rd Month	Every six month	June-July																												
BG	6 Months	Every Year	Aug-Sep																												
HS	6 Months	Every Year	Sep-Oct																												
Anthrax	6 Months	Every Year	April-May																												
Brucellosis	4-8 Months	-	March-April																												
				FMD	3rd Month	Every six month	June-July																								
				BG	6 Months	Every Year	Aug-Sep																								
				HS	6 Months	Every Year	Sep-Oct																								
				Anthrax	6 Months	Every Year	April-May																								
				Brucellosis	4-8 Months	-	March-April																								
		De-worming	De-worming	<p>Deworm the calf regularly to remove worms using deworming drugs. Bovine Vaccination</p> <p>Deworm at 30 days interval.</p>																											

7	Reproductive	Artificial Insemination	Various symptoms	<p>The animal will be in an excited condition.</p> <p>The animal will be in restlessness and nervous.</p> <p>The animal will be below frequency.</p> <p>The animal will reduce the intake of feed.</p> <p>The animals which are in heat will lick other animals and smelling other animals.</p> <p>The animals will try to mount other animals.</p> <p>The swelling of the Vulva will be seen.</p> <p>The tail will be in a raised position.</p> <p>Milk production will be slightly decreased.</p> <p>On Palpation uterus will be turgid and the cervix will be opened.</p>
8	Milking	Methods of Milking	Hand Milking	<p>Many milkers during milking tend to bend their thumb against the teat. The method is known as knuckling which should always be avoided to prevent injuries of the teat tissues.</p> <p>Milking should always be done with full hand unless the teats are too small or towards the completion of milking</p>
			Machine Milking	<p>Calf and the machine- similar fashion</p> <p>Tongue, Dental pallet and jaw movement of the calf by the inflation tube, pulsator and vacuum pump.</p>
9	Clean Milk	Clean Milk Production	Milk containing dirt, dust, foreign materials high bacterial count and with off, flavour is called contaminated milk. Milk is contaminated by various sources like Udder, Exterior of cows' bodies, milking barn, flies, milker, utensils, etc.	<p>The animal should be washed before milking.</p> <p>Washing of cows is the best practice to minimize bacterial entry.</p> <p>If the calf is allowed for sucking, the udder may be moist, cleaned with a weak disinfectant solution later with fresh, clean water, and wiped dry with a smooth and clean cloth.</p> <p>The hands of the milker should be clean and dry. Wet hand-milking may result in a high bacterial count in the milk.</p> <p>Nails of hands of the milker should be well-trimmed.</p> <p>Milker should be free from all diseases.</p> <p>Milking barns should be well ventilated free from flies.</p> <p>Utensils used for milking should be clean, sanitized, smooth, and copper-free.</p> <p>The hind legs and the switch of the animal be tightened with the help of a milk man's rope at the time of milking.</p> <p>Milk is kept in a cool place to maintain the flavour and keeping quality.</p> <p>Milk should be covered with lids to avoid dust, dirt, entry hot, or cold, daylight, or strong artificial light, all of which tend to decrease milk quality.</p>
10	Dairy Management	Economic character in Dairy Cattle.	Lactation yield	<p>'The lactation yield in Indian breeds is very low compared to exotic breeds.</p> <p>This is dependent on no. of calving, frequency of milking, persistency of yield.</p> <p>Normally in dairy cattle, a 30 - 40 % increase in milk production from the first lactation to maturity is observed.</p> <p>After 3 or 4 lactations the production starts declining.</p>
			Lactation period	<p>The optimum lactation period is 305 days.</p> <p>Indian breeds will have less lactation period, but in some breeds, this period is more with very little milk production.</p>

			Persistence of yield	<p>During the lactation period, the animal reaches maximum milk yield per day within 2-4 weeks which is called peak yield.</p> <p>The maintenance of peak yield for long period is known as persistency.</p>
			Age at first calving	<p>The age of the animal at first calving is very important for high lifetime production.</p> <p>The desirable age at first calving in Indian breeds is 3 years, 2 years in crossbreed cattle and 3 1/2 years in Buffaloes.</p> <p>If the age at first calving is below optimum, the calves born are weak, difficulty in calving and less milk production in the first lactation.</p>
			Service period	<p>It is the period between -date of calving and the date of successful conception.</p> <p>The optimum service period helps the animal to recover from the stress of calving and also to get back the reproductive organs back to normal.</p> <p>For cattle, the optimum service period is 60-90 days.</p> <p>If the service period is too prolonged the calving interval prolonged, less no. of calving will be obtained in her lifetime and ultimately less lifetime production.</p> <p>If the service period is too short, the animal will become weak and the persistency of milk production is poor due to immediate pregnancy.</p>
			Dry period	<p>It is the period from the date of drying (stop of milk production) to the next calving.</p> <p>A minimum of 2 – 2 ½ months dry period should be allowed.</p> <p>If the dry period is not given or too low a dry period, the animals suffer from stress.</p> <p>if the dry period given is too high, it may not have that much effect on increasing milk yield in the next lactation.</p>
			Inter calving period	<p>This is the -period between two successive calving's.</p> <p>profitable to have one calf yearly in cattle and at least one calf for every 15 months in buffaloes.</p> <p>If the calving interval is more, the total no. of carvings in her lifetime will be decreased and also total life production of milk decrease.</p>
			Reproductive efficiency	<p>Reproductive efficiency means the greater number of calves during a lifetime.</p> <p>so that total lifetime production is increased</p>
			The efficiency of feed utilization	<p>The animal should take the feed more and utilize it efficiently to convert it into the milk</p>
			Disease resistance.	<p>Indian breeds are more resistant to the majority of diseases compared to exotic cattle. Crossbreeding helps to get this character.</p>

# 26

## Goat Rearing Technical Solution Areas

1. Housing or sheds: Standard and hygienic design of hygienic goat shed that reduces the incidence of worms.
2. Periodic dung testing and deworming: High incidence of worms in goats leads to lower weight gain and lower income from the sale of goats. Deworming is an important preventative care regime for reducing parasites (internal and external) and improving the goat's health. After periodic dung testing by the SPARK, CFS will insist on the administration of an appropriate amount of de-wormer based on the accurate body weight of animals to be treated.
3. Vaccinations: Vaccination has long been an effective way to reduce disease burden in farm animals, and is a key tool in maintaining animal health and welfare.
4. Castration procedure to prevent infection and mortality: Traditional method of castrating male goats' results in a high number of infections and mortality. To avoid this CFS will emphasize safe and secure measures to implement castration to prevent infection and mortality.
5. Insurance and tagging: CFS will explore possibilities of insurance for goats through Animal husbandry department schemes.
6. Feed supplement / salt licks: CFS will ensure appropriate mineral supplements in the form of a salt lick procured and made available for the goats through SPARKs. The supplements help in reducing kid mortality and enhancing the weight gain of goats.
7. Periodic de-ticking: Tick infestations also affect the weight gain of goats. CFS will ensure periodic de-ticking process using the appropriate medicines mixed with water to the trainees.
8. Community drought-resistant fodder nursery: CFS will focus on the establishment of a community nursery for growing drought-tolerant fodder plants to enhance the availability of fodder during lean periods.

9. Treating anaemia: Anaemia in goats also substantially affects weight gain. Training is provided to the trainees on using a basic eye test to determine the presence of Anaemia and administering iron supplements to treat it.
10. Ethnoveterinary practices as first aid: Trainees are trained on Ethno-veterinary Practices (traditional/natural treatments) as a first-aid treatment for various common ailments.
11. Convergence: Convergence with Govt. Agri and Animal Husbandry Departments for training, health coverage, insurance, and linking Government schemes







## VAZHNDHU KAATTUVOM PROJECT

Department of Rural Development and Panchayat Raj

5th Floor, Tamilnadu Small Industries Development Corporation Limited,  
Thiru Vi Ka Industrial Estate, Chennai 600 032

(044) 434 43200 | tnrtstate@gmail.com | www.tnrt.org

[f](#) VaazhndhuKaattuvom [@](#) VaazhndhuKaattuvom [t](#) tn\_rtp