

तकनीकी प्रतिवदेन

जनजातियों के विकास हेतु कार्य योजना

Technical Report

Development Action Plan for Scheduled Tribes



2021-2022



भाकृअनुप-खुरपका मुंहपका रोग निदेशालय

अरुगुल, भुवनेश्वर-752050 (उड़ीसा)

ICAR-Directorate of Foot and Mouth Disease

Arugul, Bhubaneswar-752050 (Odisha)





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PREFACE

The ICAR-Directorate of Foot and Mouth Disease (ICAR-DFMD) (formerly Project Directorate of Foot and Mouth Disease) deals with most economically important livestock disease i.e. FMD in all geographical regions of country through state collaborating FMD units using institute technologies for the betterment of farming community. The Directorate has developed scientific expertise in conventional as well as in cutting edge areas, in the field of FMD diagnosis and epidemiology. The mandate of Institute is ‘Surveillance, epidemiology through systematic monitoring of antigenicity and genomic make up of FMD virus strains, repository and capacity development’. It is also entrusted with the duty of providing technical support, knowledge and scientific input to the planners and strategy making agencies in planning control of FMD in the country and the SAARC region. ICAR-DFMD is recognized as ‘**FAO Reference Centre for FMD**’ and serves as the National Referral Laboratory for the disease. The institute also uses the state FMD centre to carry out numerous programmes of ICAR under the NEH, SCSP, and TSP schemes.

I express deep sense of gratitude to Dr B. N. Tripathi, DDG (AS), ICAR and Dr Ashok Kumar, ADG (AH), ICAR for providing all the necessary support and guidance in steering the Institute. Also, the help and support extended by Dr R. Gupta, Principal Scientist (ANP) is duly acknowledged. The generous support received from Director of Research, AAU, Assam, Directorate of Animal Husbandry Govt. of Uttarakhand, Govt. of Gujarat and Jammu & Kashmir is gratefully acknowledged. Untiring effort of a small team of young scientists in implementing the flagship programme in successful manner is praiseworthy. I place on record my appreciation for Administration, Audit & Accounts, Technical, and Skilled support staff of the ICAR-DFMD for their excellent assistance in achieving the targets.

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LIST OF ABBREVIATIONS

AICRP on FMD	All India Coordinated Research Project on Foot and Mouth Disease
AAU	Assam Agriculture University
ADG (AH)	Assistant Director General (Animal Health)
C.V.Sc	College of Veterinary Sciences
Co PI	Co- Principal Investigator
CSF	Classical swine fever
DDG (AS)	Deputy Director General (Animal Science)
FAO	Food and Agriculture Organization
FMD	Foot-and-Mouth Disease
ICAR	Indian Council of Agricultural Research
IVRI	Indian Veterinary Research Institute
NEH	<i>North Eastern</i> Hill Region
NSL	National Sero -Monitoring Laboratory
PI	Principal Investigator
PPR	<i>Peste des Petits Ruminants</i>
SAARC	South Asian Association for Regional Cooperation
SCSP	Scheduled Caste Sub-Plan
TAH	Temperate Animal Husbandry
TSP	Tribal Sub Plan
U.S. Nagar	Udham Singh Nagar

EXECUTIVE SUMMARY

The ICAR-DFMD is a premier institute for research and development on Foot and mouth disease in the country. The institute caters the service across nation through its three laboratories and 30 collaborating units. Besides research activities, the outreach programs have also been carried out as Scientific Social Responsibility for the betterment of farming community. The DAPST flagship program of council has been implemented in three states and one union territory during the year 2021-2022.

The operational area under the program has been selected as total 14 tribal dominated districts for the interventions in states of Assam, Gujarat, Uttarakhand and Jammu-Kashmir. Under DAPST 2021-2022, programme tribal population from 58 villages from these states and UT were got benefited through various technological interventions. The interventions were mainly carried out for the improvement of production and health of their livestock in-turn empowering the livelihood security of the community.

The activities like capacity building program, demonstration, awareness camp cum *Kisan Goshti*, animal health camp and critical input distribution for up-keeping of animals were conducted in the different villages. The activities were co-ordinated and implemented by expert team comprising PI, Co-PI of concerned state FMD collaborating units and scientists of ICAR-DFMD. Total 10 trainings, 09 demonstrations, 27 awareness camp cum *Kisan Goshti*, 02 animal health camps were conducted. Additionally, 08 critical inputs like improved goats, pregnancy ration, utility crate, portable vermin-bed, milk can, calcium supplements, mineral mixture and disinfectants have been distributed among tribal farmer in operational area. Total 3083 tribal farmers were benefitted through these interventions. The activities were highlighted in different local and digital media platforms. The feedback from the farmers regarding interventions and its progress has also been recorded.

The state-wise activity plan was designed in discussion with state representatives and executed by constituted team of the institute. Several rounds of interactive meetings, field visits and data recording were carried out for effective monitoring of flagship program. The institute utilized 97.89 % of total allocated budget under the flagship program for year 2021-2022.

कार्यकारी सारांश

खुरपका मुंहपका रोग अनुसंधान के लिए परिषद का, 'आईसीएआर-डीएफएमडी' एक प्रमुख अग्रणी संस्थान है। संस्थान अपने तीन प्रयोगशालाओं और 30 सहयोगी इकाइयों के माध्यम से पूरे देश में सेवा प्रदान करता आ रहा है। अनुसंधान गतिविधियों के अतिरिक्त, सामाजिक उत्तरदायित्व के रूप में कृषक समुदाय के लिए विभिन्न विकास कार्यक्रम भी आयोजित किए जाते हैं। परिषद के डीएपीएसटी (DAPST) फ्लैगशिप कार्यक्रम वर्ष 2021-2022 में संस्थान द्वारा तीन राज्यों और एक केंद्र शासित प्रदेश में लागू किया गया।

कार्यक्रम के तहत असम, गुजरात, उत्तराखंड और जम्मू-कश्मीर राज्यों के कुल 14 आदिवासी बहुल जिलों का परिचालन क्षेत्र रूप में चयन किया गया। इन राज्यों और केंद्रशासित प्रदेशों के कुल 58 गांव के अनुसूचित जनजाति के पशुपालकों को विभिन्न तकनीकी व्यवधान के माध्यम से लाभान्वित किया गया। कार्यक्रम के अंतर्गत, मुख्यरूप से किसानों की आजीविका सशक्त तथा सुरक्षित करने हेतु पशु उत्पादन और स्वास्थ्य में तकनीकी सुधार सुझाए गए।

इसी क्रम में अलग-अलग गांवों में किसान प्रशिक्षण, तकनीकी-प्रदर्शन, जागरूकता शिविर सह किसान-गोष्ठी जैसी गतिविधियों का आयोजन किया गया। साथ ही, पशु स्वास्थ्य शिविर और पशुओं के पालन-पोषण के लिए महत्वपूर्ण इनपुट वितरण कार्यक्रम आयोजित किये गए। डीएपीएसटी (DAPST) फ्लैगशिप कार्यक्रम के सभी गतिविधियों को विशेषज्ञ टीम द्वारा समन्वयित एवं कार्यान्वित किया गया, जिसमें संबंधित राज्यएफएमडी सहयोगी इकाइयों के मुख्य-इंवेस्टिगेटर (Principal Investigator), सहयोगी-इंवेस्टिगेटर (Co-Principal Investigator) और आईसीएआर-डीएफएमडी के वैज्ञानिक शामिल हुए। कुल 10 प्रशिक्षण, 09 तकनीकी प्रदर्शन, 27 जागरूकता शिविर सह किसान गोष्ठी, 02 पशुस्वास्थ्य शिविर आयोजित किए गए। इसके अतिरिक्त, 08 महत्वपूर्ण इनपुट वितरण जैसे उन्नत बकरियां, गर्भावस्था राशन, उपयोगिता टोकरा, पोर्टेबल वर्मिन-बेड, मिल्क कैन, कैल्शियम सप्लीमेंट, खनिज मिश्रण और कीटाणुनाशक को आदिवासी किसानों के बीच वितरित किया गया। सन् 2021-2022 के डीएपीएसटी फ्लैगशिप कार्यक्रम के माध्यम से कुल 3083 आदिवासी किसान लाभान्वित हुए। डीएपीएसटी फ्लैगशिप कार्यक्रम के सभी गतिविधियों को विभिन्न स्थानीय और डिजिटल मीडिया प्लेटफॉर्म पर प्रसारित किया गया। विभिन्न कार्यक्रमों एवं तकनीकी व्यवधान तथा प्रागतिक अनुप्रयोग के संबंध में लाभान्वित किसानों द्वारा प्रतिक्रिया दर्ज की गयी।

राज्यवार गतिविधियों की योजना राज्य के प्रतिनिधियों की चर्चा से तैयार की गई। संस्थान में गठित टीम द्वारा फ्लैगशिप कार्यक्रम का प्रभावी समन्वय, निगरानी एवं डेटा रिकॉर्डिंग किया गया। संस्थान ने डीएपीएसटी फ्लैगशिप कार्यक्रम 2021-2022 हेतु आवंटित कुल बजट का प्राप्त 97.89 % उपयोग किया।

INTRODUCTION

The ICAR-Directorate of Foot and Mouth Disease, Bhubaneswar (ICAR-DFMD) has already made its nationwide presence through total 30 state FMD centers for epidemiology and diagnosis Foot and Mouth Disease. Further, the institute under aegis of ICAR, New Delhi has been actively conducting Developmental Action Plan for Scheduled Tribes (DAPST) scheme, a major flagship program launched by Government of India for welfare and development of ST population. The institute has implemented DAPST activities for the year 2021-2022 in total of three states (Assam, Gujarat, Uttarakhand) and union territory of Jammu & Kashmir as per guidelines, demographic status and available resources. The state FMD centers participated in the institute DPAST 2021-2022 are namely, FMD Regional centre, Department of Microbiology, CVSc, AAU, Assam; State FMD Collaborative Unit, Gujarat, Department of Animal Husbandry, Govt. of Gujarat; State FMD Collaborative Unit, Rishikesh, Department of Animal Husbandry, Govt. of Uttarakhand and State FMD collaborative unit, J&K, Department of Animal Husbandry, UT J&K. The activities for DAPST were planned in-sync with the mandate of the institute and are primarily focused on improvement of livelihood and nutritional security of the target population. The objective of the program is to improve livelihood and nutritional security of scheduled tribes.

The program was designed and implemented in collaboration with PI and Co-PI from respective units addressing problems of the targeted community on account of their uniqueness in inhabitants, socio-economic status, migration trend and comparative backwardness. Under this program, primarily Tharu, Bhil, Karbi and Gujjar tribal communities of Uttarakhand, Gujarat, Assam and J&K, respectively were targeted. The ST population in the concerned states and UT are given below (Table 1). Moreover, the specific need based interventions in area of animal health and production were carried out at village level for efficient outreach of activity. Technological interventions were carried out mainly for farm animals like cattle, buffalo, goat, sheep and pig.

Table 1: ST population in operational states and UT

State/ UT	Total Population	ST population	Percentage of ST in respect of total population (%)
Gujarat	60439692	8917174	14.8
Assam	31205576	3884371	12.4
Uttarakhand	10086292	291903	2.89
Jammu and Kashmir	12267013	1275106	10.4

(Source: Census 2011; <https://censusindia.gov.in>)

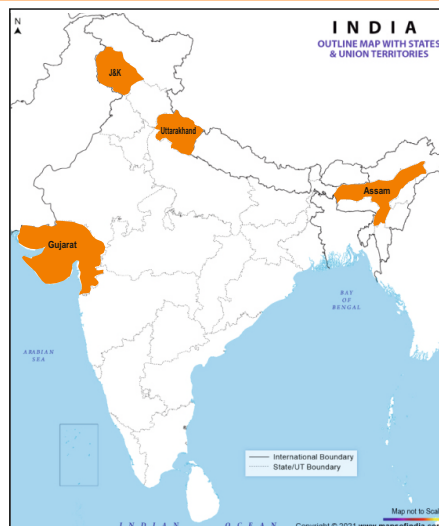
OPERATIONAL AREA

The institute identified three states and One Union territory for implementation of DAPST for the year 2021-22. Total 14 tribal dominated districts were selected for the interventions from Assam, Gujarat, Uttarakhand and Jammu-Kashmir. Under this programme tribal population from 59 villages from these states and UT were got benefited through various technological interventions. The details of villages under respective districts are summarized in table 2.

Table 2: Operational area of DAPST for the year 2021-22

State / UT	District	Village	Targeted community	Major farm animals in operational area
Assam	Kamrup	<ul style="list-style-type: none"> ● Medhikuchi ● Goriaghuli ● Dimoria ● Moirakuchi ● Kahikuchi ● Khanapara 	Rabha, Karbi, Bodo and Kachari	Cattle, goat, pig and poultry
	Darang	<ul style="list-style-type: none"> ● Andherighat ● Bishnupur 		
	Baksa	<ul style="list-style-type: none"> ● Tamulpur 		
	Golaghat	<ul style="list-style-type: none"> ● Naojan, ● Saru ● Pathar 		
	Nalbari	<ul style="list-style-type: none"> ● Barama 		
Gujarat	Dang	<ul style="list-style-type: none"> ● Machhani ● Ambopadu ● Bhal Khet ● Dagad padu ● Bor Padu ● Kudukas ● Khutal ● Burkhundhya ● Lavariya ● Borigavanth ● Uaga ● Chichinagavathu ● Dhodhulvudu and ● Ghodvahul 	Bhil and Kokni	Cattle, buffalo, goat and sheep

Uttarakhand	Udam Singh Nagar (<i>Aspirational District</i>)	<ul style="list-style-type: none"> ● Sunkharikala ● Kaundha Khera ● Bannakhera Sari ● Bhagchuri ● Nausar 	Tharu, Jannasari and Bhotia	Cattle, buffalo, goat and poultry
	Dehradun	<ul style="list-style-type: none"> ● Kedarwala ● Thaina 		
Jammu & Kashmir	Jammu	<ul style="list-style-type: none"> ● Taroti ● Ladore ● Salehar ● Mattoo ● Nai basti ● Nikki Tawi ● Pakkian ● Pargwal ● Akalpur 	Gujjar, Bakerwal and Gaddies	Cattle, buffalo, sheep and goat
	Kathua	<ul style="list-style-type: none"> ● Chaloge ● Rehan ● Gatti 		
	Rajouri	<ul style="list-style-type: none"> ● Raipur ● Kamila ● Hathal ● Jhanger ● Lam 		
	Reasi	<ul style="list-style-type: none"> ● Ransoo ● Kothia 		
	Samba	<ul style="list-style-type: none"> ● Rakh Barotia ● Dhaki 		
	Udhampur	<ul style="list-style-type: none"> ● Narsoo ● Darsoo ● Jar Krimchi 		



TECHNOLOGICAL INTERVENTIONS

The programme was implemented by conducting baseline survey cum sensitization programme, animal health camp, skilled development programme and demonstration. In addition, the need based critical inputs for livestock health management were distributed among tribal families at tribal dominated villages in the three states and one UT. It was summarized in Table 3, Table 4 and Fig. 1.

Table 3: Details of interventions carried out during 2021-22

Interventions	Implementing organization	Number of Programme/ quantity	Number of beneficiaries
Training and skill development programme (10)	● FMD Regional Centre, CVSc, AAU, Assam	7	226
	● State FMD Collaborative Unit, Rishikesh, Department of Animal Husbandry, Govt. of UK	3	165
			Sub total-391
Demonstration conducted (09)	● ICAR DFMD Mukteswar, Uttarakhand	1	32
	● RRC, AICRP FMD, Deptt. of Microbiology, CVSc, AAU, Assam	7	260
	● State FMD Collaborative Unit, Jammu, Department of Animal Husbandry, J&K	1	52
			Sub total-344
Awareness camps and Kisan Gosthi (27)	● ICAR-DFMD Mukteswar, Uttarakhand	2	54
	● RRC, AICRP FMD, Deptt. of Microbiology, CVSc, AAU, Assam	4	251
	● State FMD Collaborative Unit, Jammu, Department of Animal Husbandry, J&K	18	1116
	● State FMD Collaborative Unit, Rishikesh, Department of Animal Husbandry, Govt. of UK	3	182
			Sub total 1603
Animal Health camps (vaccination camp) (02)	● RRC, AICRP FMD, Deptt. of Microbiology, CVSc, AAU, Assam	2	62
			Sub total 62
Inputs distribution for livestock production and health care ● Goat ● Mineral mixture ● Feed ● Calcium supplements ● Milk can ● Portable Vermibed ● Utility carte ● Disinfectant	All units	68 goats (Improved buck-8, goats of 3-6 month old-60)	28
		Pregnancy feed (10750 kg)	43
		Mineral mixture 360 kg	212
		Milk can	65
		Calcium supplements, milk can and mineral mixture	70

		Utility crate	124
		Disinfectants portable Vermibed	70
		Portable Vermibed	29
			Subtotal =641
Digital outreach	ICAR-DFMD, Mukteswar, Uttarakhand	1	20
Others (mobile advisory Service)	ICAR-DFMD, Mukteswar, Uttarakhand	1	22

Table 4: State wise interventions and beneficiaries

Interventions	State/UT								Total Benefi- ciaries
	Uttarakhand		Gujarat		Assam		Jammu and Kashmir		
	No of activity	Benefi- ciaries	No of activity	Benefi- ciaries	No of activity	Benefi- ciaries	No of activity	Benefi- ciaries	
Training	3	165	-	-	7	226	-	-	391
Demonstration	1	32			7	260	1	52	344
Awareness camp and <i>Kisan Gosthi</i>	5	236	-	-	4	251	18	1116	1603
Animal health camp	-	-	-	-	2	62	-	-	62
Inputs distribution	10	578	1	43	1	20	-	-	641
Other (digital outreach)	2	42							42
Total	21	1053	1	43	21	819	19	1168	3083

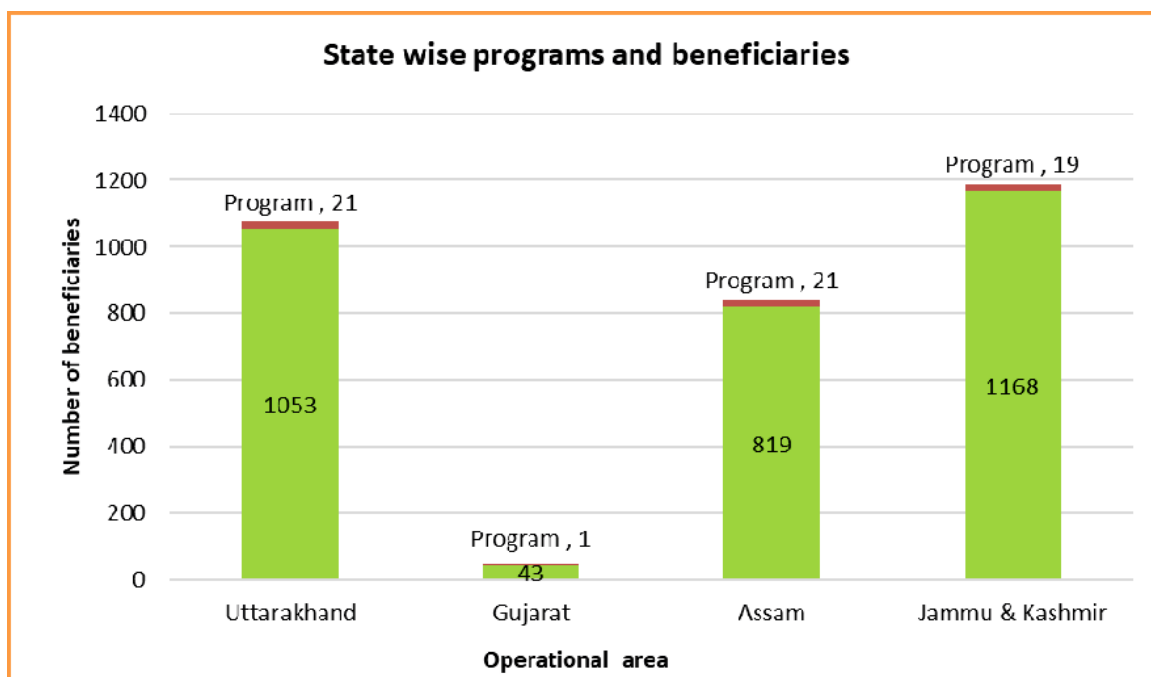


Fig. 1: State wise programme and beneficiaries

1. Training and Skill Development Programme

a) Capacity building programme at Assam

The FMD Regional Centre, CVSc, AAU, Assam, Guwahati conducted seven (07) **Trainings** at different tribal dominated villages of Assam with 226 beneficiaries. The topics of trainings broadly included, scientific management of livestock and poultry. Resource persons involved in those training programmes were Dr Rajeev Kr. Sharma, Professor cum Officer In-Charge, RRC, ICAR-AICRP on FMD, Guwahati; Dr Pankaj Deka, Assistant Virologist, RRC, ICAR-AICRP on FMD, Guwahati, Dr Arfan Ali, Assistant Professor, Department of Veterinary Microbiology, CVSc, AAU, Khanapara and Dr Raj Jyoti Deka, Assistant Professor, Department of LPM, CVSc, AAU, Khanapara and Dr Ilakshi Deka, Subject Matter Specialist, KVK, Kamrup. A total of 226 tribal farmers comprising male (n=127) and female (n=99) participated in the said trainings. Also, extension literatures in local language on the relevant topics in respective trainings were distributed amongst the participants. Details are summarised in Table 5



Trainings organized by RRC, Guwahati Unit

b) Training on Animal husbandry practice at tribal dominated villages of Uttarakhand

The State FMD Collaborating Unit, Rishikesh organized three trainings on the theme of animal health care at three villages of **district Udham Singh Nagar (US Nagar), Uttarakhand** in the month of March 2022 under Tribal sub plan (TSP) programme. A total of 165 farmers from adjoining tribal villages participated in this programme with their queries related to livestock health and production. In the training Dr G.S. Dhami, Chief Veterinary Officer, U.S. Nagar district briefed about the objectives of programme and its impacts on livelihood security of tribal farmers. Dr G.S. Khadayat, Veterinary Officer Grade I, Bajpur discussed about goat husbandry practices at tribal region and the major bacterial and viral diseases of livestock with their management. The vaccination schedules for livestock were also discussed by Dr J.P. Yadav, Veterinary Officer Grade I, Khatima, Govt. of

Uttarakhand. The team addressed different queries of the farmers during interaction namely- FMD biosafety measures, infertility, Agalactia, parasitism, wound management. Extension leaflet were distributed among the participants.

Table 5: Training details (10 numbers, participating 391 farmers)

Sl. No.	Title	Venue	Date and Duration	Participants	Remarks
1.	Scientific goat farming	Goriaghuli, Assam	14.12.21	30	Organized by Assam Unit
2.	Scientific pig farming	Bishnupur	26.12.21	45	
3.	Scientific management of pig	Medhikuchi	10.01.22	25	
4.	Scientific management of Goats	Goriaghuli, Assam	11.01.22	28	
5.	Economically important diseases of livestock and their control strategies	Kahikuchi, Assam	14.02.22	32	
6.	Scientific management of pig	Naojam, Assam	20.03.22	35	
7.	Micro management strategies to tap the full genetic potential of hybrid poultry	Moirakuchi, Assam	28.03.22	31	
8.	Goat farming an profitable entrepreneurship	Bannakherasani, Bazpur, US Nagar, Uttarakhand	16.03.22	50	State FMD Collaborative Unit, Rishikesh, Department of Animal Husbandry, Govt. Of UK
9.	Importance of mineral supplementation before FMD vaccination	Bhagchuri, Khatima, US Nagar, Uttarakhand	26.03.22	50	
10.	Importance of mineral supplementation before FMD vaccination	Nausar, Khatima, US Nagar, Uttarakhand	28.03.22	65	

2. Demonstration

Three units and ICAR-DFMD, Mukteswar campus carried out 09 demonstrations in various health aspects in tribal dominated villages. Total 344 tribes benefited through this interventions. The details of programme were summarized in table 6.

Table 6: Demonstration on animal health

Sl No	Theme area	Venue	Date	Participants	Organized by
1.	Deworming of livestock	Bishnupua, Darang, Assam	27.12.21	47	Assam Unit
2.	Mineral mixture supplementation for cattle	Goriaghuli, Kamrup, Assam	03.02.22	41	
3.	Application of Acaricidal drug	Goriaghuli, Kamrup, Assam	03.02.22	30	
4.	Deworming of livestock before vaccination	Goriaghuli, Kamrup, Assam	03.02.22	41	
5.	Procedure of oral medicine administration	Tamulpur, Baksa, Assam	15.02.22	32	
6.	Creep ration for weaned piglet	Andherighat, Darang, Assam	18.02.22	34	
7.	Use of disinfectants	Barama, Nalbari, Assam	27.03.22	35	
8.	Management of solid waste of farm animals through portable vermibed	Kaundha Khera, US Nagar, Uttarakhand	14.04.21	32	ICAR DFMD Mukteswar
9.	Cattle feeding practice	Akalpur village, Jammu, J&K	26.03.22	52	State FMD Collaborative Unit, Jammu

a) Method demonstration on “Management of solid waste of farm animals through portable vermibed” at Kaundha Khera village, Uttarakhand

ICAR- Directorate of Foot and Mouth Disease, Mukteswar campus conducted a method demonstration programme at Kaundha Khera village, Sitarganj, district Udam Singh Nagar, Uttarakhand on 14.04.2021. The theme of the method demonstration was ‘**Management of solid waste of farm animals through portable vermibed**’. A total of 32 tribal farmers participated in this programme. Dr C. Jana, Pr. Scientist briefed about the importance of management of solid waste originated from dairy farm. He also advised the farmer to compost the animal solid waste in this portable vermin beds for use in their agriculture land. In this programme, he demonstrated the method of composting cow dung using portable vermibed. *Portable Vermi-beds* were distributed among the 29 tribal farmers of this village for compost making at their farm.



Method demonstration on farm solid waste management at Kaundha Khera village, U.S. Nagar

c) Method demonstration on cattle feeding practice at Akalpur village, Jammu

The state FMD collaborating unit, Jammu organized one method demonstration in the theme of ‘cattle feeding practice’ at Akalpur village of Jammu District on 26.03.22. Total 52 farmers participated in the programme. Dr Vinay, PI of the unit focused the objective of the programme and he briefed the strategic feeding practice for milch animals for sustainable milk production. The team demonstrated the use of balanced ration to dairy animals for improving productive performance. Officers also discussed the feeding practice of calf, pregnant animals and dry animals. The feedbacks from participants were also collected post-event.



Method demonstration on cattle feeding practice at Akalpur village, Jammu

C. Demonstration on deworming of goat

Assam is a low land and flood prone state, parasitic infestation in livestock and poultry is a chronic problem in this sector. Moreover, water logging throughout the year harboring different species of snail population aggravate the situation. Hence, under the TSP programme, FMD regional Centre, Guwahati undertook a demonstration programme on deworming of livestock at Goriaghuli and Medhikuchi, Tepesia, Kamrup (M), Assam on 03rd February, 2022. Total 142 animals were dewormed benefiting 41 farm families. Prior to distribution of Anthelmintics, random faecal samples were collected and tested for assessing

the involvement of predominant types of worm infestation in respective areas. The parasitic infections found were Fascioliosis and Paramphistomiosis in cattle, Haemonchosis in goats and Ascaris in Pigs. Dr Pankaj Deka, Assistant Virologist, RRC, Guwahati addresses the participants and had an elaborate discussion regarding the role of parasitic infestation in diminishing the productivity and disease resistance in animals. He also demonstrated the procedure of medication of deworming drug orally in goats.



Demonstration on deworming of livestock at Goriaghuli village, Assam

3. Awareness camp and *Kisan Gosthi*

Awareness camps and *kisan gosthi* were organized in different location by the units (table-7, 8 and 9). The experts shared their field experience on animal husbandry and health care as well as addressed different queries of farmers related to husbandry practice during interaction. Extension leaflets in local languages were distributed in many programs.

Table 7: FMD Awareness camps and *kisan gosthi* at different locations of Uttarakhand

S. No.	Village	Block	District	Date	No. of Beneficiaries	Organizer
1.	Sunkhari Kala	Sitarganj	U.S. Nagar	21.08.2021	27	ICAR-DFMD Mukteswar
2.	Sunkhari Kala	Sitarganj	U.S. Nagar	10.12.2021	27	
3.	Banna Kheda Sani	Bajpur	U.S. Nagar	14.12.2021	70	State FMD Collaborating unit, Rishikesh
4.	Kedarwala	Kalsi	Dehradun	01.01.2022	52	
5.	Thaina	Kalsi	Dehradun	16.03.2022	60	
				Total	236	

Table 8: FMD Awareness camps and kisan gosthi organized by FMD regional Centre, Guwahati at different locations of Assam

S.No	Village	Block	District	Date	No. of Beneficiaries
1.	Gongapukhuri	Sipajhar	Darang	28.12.2021	100
2.	Goriaghuli	Sonapur	Kamrup	03.02.2022	30
3.	Khanapara	Dispur	Kamrup	21.03.2022- 23.03.2022	100
4.	Moirakuchi	Dispur	Kamrup	28.03.2022	21
Total					251

Table 9: FMD awareness cum input distribution camp at various locations of Jammu and Kashmir, organized by State FMD collaborating Unit, Jammu

S.No	Place	Block	District	Date	No. of Beneficiaries
1.	Pakkian	Marh	Jammu	30.12.2021	42
2.	Taroti	Khour	Jammu	15.01.2022	69
3.	Nikki Tawi	Raipur Satwari	Jammu	12.02.2022	77
4.	Ladore	Marh	Jammu	23.02.2022	55
5.	Salehar	R.S. Pura	Jammu	24.02.2022	45
6.	Mattoo and Nai Basti	Khour	Jammu	26.02.2022	87
7.	Chaloge	Bani	Kathua	21.02.2022	49
8.	Rehan and Gatti	Basholi	Kathua	22.02.2022	97
9.	Ransoo	Pouni	Reasi	26.02.2022	63
10.	Kothia	Pouni	Reasi	04.03.2022	53
11.	Raipur Kamila	Qila Darhal	Rajouri	04.03.2022	63
12.	Hathal	Sunderbani	Rajouri	22.03.2022	26
13.	LAM and Jhanger	Nowshera	Rajouri	23.03.2022- 24.03.2022	76
14.	Kamila	Kote Quiladarhal	Rajouri	29.03.2022	38
15.	Rakh Barotia	Vijaypur	Samba	15.02.2022	61
16.	Dhaki	Sumb	Samba	19.03.2022	68
17.	Bali	Narsoo	Udhampur	10.02.2022	49
18.	Darsoo and Jar Krimchi	Udhampur	Udhampur	11.03.2022	98
				Total	1116



Awareness camps at tribal villages of Jammu district, J&K

Kisan gosthi

Organization of *Kisan Gosthi* at Sunkhari Kala village, Sitarganj block

The Institute organized *Kisan Gosthi* at Sunkhari Kala village of Sitarganj block, U.S. Nagar, Uttarakhand on 10th December 2021 in collaboration with ICAR-IVRI Mukteswar. The *Kisan Gosthi* was framed out on the theme “Animal Shed disinfection” in tribal area. Total 27 farmers participated in this programme with their queries related to livestock production and management. In the *gosthi*, Dr C. Jana, Principal Scientist briefed about the objectives of *kisan gosthi* and focused on farm disinfection measures at village level. Farmers were also enlightened for the usage of different disinfectants for routine animal shed disinfection. Dr Jana also discussed the disinfection procedures of animal shed during FMD outbreak. He suggested to use sodium carbonate as 4 % solution during FMD outbreak which is very cost effective and readily available. Dr Madhusoodan A.P., Scientist Division of TAH, ICAR-IVRI, Mukteswar highlighted the impact of bio-security measures for better livestock health management. It is an integrated and cost-effective management practice of animal rearing. Several other issues of farmers including the quarantine of newly purchased/infected animals, therapeutic and immunization of farm animals against FMD and management of infertility in cattle were also addressed during interaction. Application of lime and beaching in goat shed were demonstrated in this *gosthi*. The feedback was also collected from participants.



Kisan Gosthi on Animal shed disinfection at Sunkharikala village, U S. Nagar

Organization of animal health camp at Baksa, Assam

The Regional Research Centre, ICAR-AICRP on FMD, Guwahati organized two animal health camps on FMD control programme where a total 62 tribal farmers participated with their animals. On 3rd February, 2022, the first animal health camp was organized at Dimoria, Tepesia, Kamrup (M), Assam. In the programme, 100 animals were treated for various ailments like wound management, parasitism, infertility and mastitis. On 15th February, 2022, second animal health camp cum Vaccination camp against FMD and PPR in susceptible host was conducted at Tamulpur, Baksa, Assam, where 277 animals (82 cattle, 149 goats and 46 pigs) were vaccinated. Dr Pankaj Deka, Assistant Virologist, RRC, AICRP on FMD, Dr Arfan Ali, Assistant Professor, Department of Veterinary Microbiology and Dr Ritam Hazarika, SRF, RRC, Guwahati actively coordinated the both programme. Dr Deka briefed about the importance of FMD vaccination in cattle, buffalo, goat and pig. He suggested to vaccinate farm animals with FMD vaccine twice in a year to control the disease specially in the districts facing international boundaries.



Animal Health camps at Dimoria and Tamulpur villages, Assam

4. Input distribution cum Sensitization programme

a) Development of goat value chain through quality goat kids

Goriaghuli village is located at Kamarkuchi panchayat, Dimoria block, Kamrup district. The village is situated on the eastern side of National Highway 37 at a distance of 38 kilometres to the north of Guwahati city and 7 kilometres from Sonapur. Goriaghuli village lies within 26° 06'54''N to 28°N latitude and 96°E longitude. Initially in the selected village, deworming of all the livestock was conducted. Following deworming, all the susceptible livestock populations were vaccinated against FMD, PPR and CSF. A training programme on scientific management of Goats was organized in the village. After that, total 60 goat kids of Improved breed (Assam hill goat), 13 quintals of feed ingredients (Maize, Soya etc.) and feed additives / medicines (mineral mixture, vitamins etc.) were distributed amongst 20 selected scheduled tribes women on 29/03/2022. Prof (Dr) R.K. Sharma, PI of project briefed about the importance of goat husbandry in empowering tribal farmers. Dr B. Bhattacharyya, Deputy Director of Research (Veterinary) highlighted the productive performance of Assam Hill goat in low inputs system. In the programme, Dr Pankaj Deka, Assistant Virologist, RRC, Guwahati delivered a lecture on care and management of the goat kids. Dr Ritam Hazarika, SRF and local public representative facilitated the whole programme.





Distribution of Assam hill goats among tribal women

d) Distribution of balanced ration for pregnant cattle at Taluka Waghai, District Dang, Gujarat

The State FMD collaborating Unit, Gujarat organized an input distribution programme on 22nd January, 2022 at tribal dominated villages of Taluka- Waghai, District Dang, Gujarat for strategic feed supplementation to pregnant cattle. The villages include Muchhani, Ambopadu, Bhailkhet. The Veterinary Officers of this block advised to give the pregnancy allowance daily to pregnant cattle for improvement of health of the animals. He also focused the importance of pregnancy allowance as i) To maintain good health of pregnant cattle, ii) to ensure proper development of calves in the womb of pregnant cattle, iii) to obtain good milk production as per the potential of the cattle and iv) to maintain good milk yield in milch animals. Total 215 bags (215x 0.5 quintal = 107.50 quintal) of BIS Type-2 DAN was distributed among 43 tribal families for their pregnant cows and heifers (n=43).



Distribution of Pregnancy ration at District Dang, Gujarat

e) Distribution of Milk Can at Bannakheda Sani village, Bajpur, Uttarkahnd

The State FMD Collaborating Unit, Rishikesh organized inputs distribution cum interaction programme at Bannakheda Sani village, Bajpur, **U.S. Nagar district, Uttarakhand** in the month of December 2021 under DAPST. A total of 70 farmers from adjoining tribal villages participated in this programme. Dr G. S. Dhami, Chief Veterinary Officer, U.S. Nagar district narrated the aims of DAPST programme and user procedure of milk can with its sanitary measures. One milk Can made of Stainless Steel has been distributed to each beneficiary with feed supplements. Additionally, improved bucks were distributed among 8 tribal families.



Inputs distribution and interaction programme at Bannakheda Sani village, Uttarakhand



Distribution of improved bucks among tribal families of US Nagar, Uttarakhand

f) Distribution of Utility-crate at Sunkharikala village, US Nagar, Uttarakhand

The institute organized input distribution programme under DAPST scheme at village Sunkharikala on 17th December, 2021. The village is situated at foothill of Kumaon range; on the outskirts of Sitarganj Industrial area and the inhabitants are mainly depends on agriculture and animal husbandry for their livelihood. The animal rearing practice is very traditional in nature with low-input resources. To improve their overall husbandry practice, the multipurpose utility crates are distributed among families (n=129) of Sunkharikala village and its surroundings. Dr C. Jana demonstrated the uses of crate for hygienic feed storage and feeding of animal within and outside shed to reduce feed wastage. Similarly, the crate can be used for carrying of roughages and small farm-tools like milk can, etc. After input distribution, an expert talk on ‘Feed management of farm animals’ was delivered.



Distribution of Utility crate at Sunkharikala village, U.S. Nagar



Method demonstration on use of Utility crate in farm operation at Sunkharikala village, U.S. Nagar

MONITORING AND EVALUATION

The activities under DAPST were coordinated and monitored by constituted local team at the institute (Table 10). The Principal Investigators and Co-Principal Investigators of four state FMD collaborating units were actively engaged in implementing the program in different states. The villages were selected for technological intervention after baseline-demographic survey and constraint analysis. Total seven virtual meetings were conducted to evaluate the performance of activities at different locations. The data recording, details of beneficiaries, media coverage and quarterly reporting to Council were carried out as a part of monitoring and evaluation.

Table 10: Local monitoring and evaluation team of the Institute

Sl. No.	Name of the Scientist	Role as
1.	Dr C. Jana, Pr. Scientist, ICAR-DFMD, Mukteswar	Chief Coordinator
2.	Dr Sagar Ashok Khulape, Scientist, ICAR-DFMD, Mukteswar	Coordinator
3.	Dr Aditya Prasad Sahoo Scientist (SS), ICAR-DFMD Bengaluru	Member
4.	Dr J.K. Biswal, Scientist (SS), ICAR-DFMD, Bhubaneswar	Member
5.	Dr S. Mallick, Scientist, ICAR-DFMD, Bhubaneswar	Member
6.	Mr. Tara Kumar, AAO, ICAR-DFMD, Mukteswar	Member

BUDGET UTILIZATION

The Institute received Rs 24.00 lakhs as total budgetary allocation under DAPST for the year 2021-22. The directorate has released the funds of Rs 23.00 Lakhs in two installments among four State FMD collaborating units (Table 11) as per activity and target planned. The Institute utilized 97.91 % of total allocated scheme budget during the financial year 2021-22.

Table 11: Total allocation for the year 2021-2022 (as released upto 31.03.22)= Rs. 24.00 Lakhs

Sl. No.	Name of centre	Fund Release (Rs. In lakh)		Utilized as on 31.03.22 (Rs. In Lakh)
		1 st Instalment	2 nd Instalment	
1.	Guwahati FMD Regional Centre	3.00	5.00	8.00
2.	State FMD collaborating Unit, Gujarat	2.00	3.00	5.00
3.	State FMD collaborative Unit, Jammu	3.00	2.00	4.99975
4.	State FMD collaborative Unit, Risikesh, Uttarakhand	3.00	2.00	5.00
5.	ICAR DFMD Mukteswar	1.00		0.49890
Grand Total		24.00		23.4946
Utilization (%)				97.89

Activity photographs of Assam Unit



Distribution of feed and feed supplements by Assam Unit



Collection of stool sample by Assam Unit



Distribution of quality goat by Assam Unit



Training on scientific goat rearing by Assam Unit

DAPST 2021-2022 activity glimpse of Jammu Unit



*Awareness Camp at Taroti Khour
District Jammu*



*Awareness Camp at Akalpur
District Jammu*



*Distribution of Calcium and Dewormers to
Tribal farmers of village Nai Basti Khour
District Jammu*



*Awareness Camp at Darsoo District
Udhampur*

वार्ड नंबर 75 में डेयरी किसानों के लिए जागरूकता शिविर लगाया

जम्मू, 26 मार्च (रोशनी): जम्मू नगर निगम के वार्ड नंबर 75 में एनिमल हस्बैंडरी विभाग द्वारा एक जागरूकता शिविर आयोजित किया गया। शिविर का आयोजन ट्राईबल सब प्लान के तहत किया गया। शिविर की अध्यक्षता डॉ. संदीप कुमार ने की। शिविर में वार्ड के पार्षद धार सिंह भी मुख्य रूप से उपस्थित रहे। डॉ. संदीप ने शिविर में आए हुए डेयरी किसानों को विभिन्न तरह की फीड सप्लीमेंट और

शिविर के दौरान पार्षद धार सिंह व अन्य।

संबंधित दवाओं के बारे में जानकारी दी। इस मौके पर पार्षद धार सिंह ने वार्ड में शिविर आयोजित करने के लिए संबंधित अधिकारियों का धन्यवाद किया।

(मोहित)

Newspaper coverage for Farmer awareness camp

Activity photographs of ICAR-DFMD Mukteswar



Distribution of utility crate



Usage of utility crate in animal feeding practice



Awareness camp



Method demonstration on vermi-composting



Distribution of disinfectants



Method demonstration on animal shed disinfection

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