



TSP NICRA NEWSLETTER

Krishi Vigyan Kendra, Dhemaji
Assam Agricultural University

অসম কৃষি বিশ্ববিদ্যালয়



Vol. I

Issue-I

Message from Director of Research, AAU, Jorhat



It gives me immense pleasure to learn that KVK, Dhemaji is releasing 1st issue of the newsletter to reflect its activity of TSP-NICRA project under AICRP for Dry land Agriculture. The group of Scientists has done a remarkable job in transforming the NICRA village from flood affected unproductive area to economically remunerative and viable showpiece by validating all sorts of improved Agricultural technology suitable for that situation. The newsletter will further open up, communication channel that aims to keep updated the untiring efforts of KVK, Dhemaji towards farming community of the district providing climate resilient technology in agriculture and allied sector.

I congratulate the Programme Coordinator, entire staff of KVK, Dhemaji and Chief Scientist, AICRP for Dry land Agriculture, BNCA for their collective effort in bringing out this publication and wish them all success with great expectation that similar spirit is seen in the years to come.

AICRPDA, BISWANATH CHARALI CENTRE
ASSAM AGRICULTURAL UNIVERSITY

G.N. Hazarika

Message from Director of Extension Education, AAU, Jorhat

A Newsletter is the mirror of an organisation, which reflects not only activities of the organisation/institute but also information about agriculture and allied aspects. Bringing out a Newsletter needs lot of efforts.

I congratulate KVK, Dhemaji for the noble endeavour to bring out this publication. I hope the Newsletter will be able to let policy makers, elite citizens, agricultural scientist and officers, extension personnel, press and media personnel, farmers, agripreneurs, farm youths, farm women and all other concerned with agricultural development of the district about activities of this KVK and other related information.



Dr. H.C. Bhattacharyya

Message from Chief Scientist, BNCA, AICRPDA



The tribal sub-plan (TSP) is being implemented at Dhemaji district of Assam, under All India Co-Ordinated Research Project for Dry land Agriculture (AICRPDA), Biswanath Chariali Centre in collaboration with Krishi Vigyan Kendra, Dhemaji, Assam Agricultural University (AAU) since 2012-13 with active Assistance of Regional Agricultural Research Centre, North Lakhimpur. Based on the success of National Initiative on Climate Resilient Agriculture (NICRA) being implemented at Lakhimpur district under AICRPDA, Biswanath Chariali Centre, as envisaged by the Honorable Vice-Chancellor, AAU and able guidance of Director of Research, AAU & Director of Extension Education, AAU, NICRA is also being up-scaled along with TSP programme in collaboration with Krishi Vigyan Kendra, Dhemaji with the fund received under NEH grant from Central Research Institute for Dry land Agriculture, Indian Council of Agricultural Research, Hyderabad. The project being implemented in collaborative mode, even though at its initial stage, some achievements has been made so far including renovation of 2 ha natural depression which is being at present used for rain water harvesting as well as pisciculture, Custom Hiring Centre as well as other scientific interventions including introduction of improved breeds of livestock. The Deputy commissioner of Dhemaji District has approved construction of an Agricultural Training Centre at TSP Village, Jalakiasuti under RSVY, which will play a pivotal role in agricultural development of the area. I hope that in near future the project will act as a role model for it's up-scaling across all tribal populated area of Assam for bringing about economic change of the farming community in particular and economic status of Assam in general.

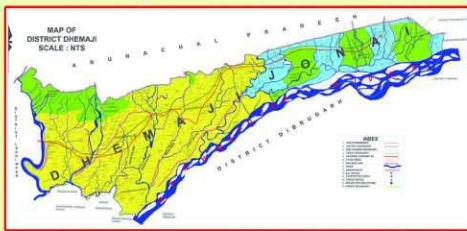
(P.K. Sarma)

Few words from Programme Co-ordinator

It is a matter of great privilege and pride to be a part of TSP- NICRA Up- scaling project being implemented at Jalakiasuti village of Sissiborgaon block of Dhemaji district. To be precise, the implementation of such a programme is the result of hard work, sincerity and dedicated efforts of all the staffs of Krishi Vigyan Kendra, Dhemaji and supports and advices of all concerned starting from AICRPDA, Hyderabad & BNCA, Biswanath Chariali, RARS-North Lakhimpur, Director of Research and Director of Extension Education, AAU, Jorhat. I congratulate all of us for publication of this Newsletter and hope it will encourage us to do better in our future endeavors.

Dr. Rijusmita Sarma Deka

The All India Coordinated Research Project for Dryland Agriculture (AICRPDA), a network programme under Central Research Institute for Dryland Agriculture (CRIDA), ICAR, Hyderabad is being executed at BNCA center. During 2012-13 the center selected one tribal village "Jalakiasuti (Rupahiborbora)" of its domain tribal district "Dhemaji" in order to demonstrate technological components addressing climate aberrations with the help of Krishi Vigyan Kendra, Dhemaji, Assam Agricultural



TSP VILLAGE AT A GLANCE

Sub Division :	Dhemaji
Block :	Sissiborgaon
Demographic details	
Population :	783
Literacy rate :	67.6%
Total geographical area :	227 Ha.
Status of Agriculture :	Rainfed
Distribution of households in the village	
Landless	20
Marginal	47
Small	57
Medium	28
Large	08

University, Silapathar. Further Krishi Vigyan Kendra, Dhemaji was selected as an implementing center in collaboration with Regional Agricultural Research Station, North Lakhimpur. This is the first adopted village in Assam by CRIDA to be developed as model village. The village was selected by KVK Scientist after preliminary survey and information collected from line departments. The villagers were purely dependent on agriculture and allied sectors. But the natural calamities (both draught and flood) were the hurdles for agricultural activities in spite of hard labour and encouraging engagement of youth class in the sector. A part of the village suffers from flash flood during monsoon and draught effects the village during rabi season. One water course in the name of Jalakiasuti originating from hillock of Arunachal Pradesh is streaming through the village, which was thought as blessing of nature earlier but distressing now a days due to mass deforestation in the hillock. The villagers experienced both the extreme condition of draught and flash flood. Out of total agricultural land 15 to 20 per cent of land has already become less productive due to deposition of sand and silt. During late kharif, 2012 a devastating flash flood occurred in the village. Major losses has been observed in fishery sector followed by livestock and crop. Out of different crops plantation crop including betelvine, betel nut and Assam lemon has been affected badly in the flood. Sand and silt has been deposited in many Sali paddy fields. Administratively the village falls under Dhemaji subdivision and Sissiborgaon block of Dhemaji district. The project is implemented in seven modules Natural Resource Management, crop production under contingency crops, livestock, fishery, diversification of agriculture and livelihoods promotion, post harvest handling and management, Institutional Arrangement: Custom Hiring center. The project started by constitution of an eleven members village development committee constituted in the name of Jalakasuti krishi unnyoyan samiti for execution of works. After a number of sittings first step taken to initiate the project was improvement of the village approach road, the villagers came forward in mass to level the road. As per

the proposed intervention under Natural resource Management (NRM) of TSP-NICRA up scaling programme, plantation of different species of plant saplings like arjun, bel, Krishna sura, amla was done in road side of the approach road of TSP-NICRA village and arjun tree plantation was done along the river bank of Jalakiasuti river.



TECHNOLOGY DEMONSTRATION COMPONENTS UNDER TSP-NICRA UP SCALING PROJECT.

1. Natural Resource Management

a. Renovation of water harvesting structure and fish pond

During survey a defunct pond covering 2 ha was observed, which was renovated to water harvesting structure and fish pond under the programme. About 1000 m length of embankment is raised up to average



3 feet height. Three numbers of water harvesting point were constructed so that water can be used in nearby areas for irrigation for rabi crops. With assured irrigation potentiality which became possible through harvesting of rain water has helped the farmers during rabi season who were otherwise dependent on rain.



b. Borewell recharge

KVK-Dhemaji located at Silapathar is serving the poor farmers since 2007 through a concerted effort. As the region is chronically drought hit, cultivation of rainfed rice often suffers to varying extent. Hence, to protect the interest of the farmers, last year under TSP project, three borewells were



recharged in the TSP village to make functional regular water supply with a view to increase cropping intensity. Recharge of borewell and renovation of water harvesting structure has helped farmers to take a step in cultivation of rice followed by Toria and high value vegetables. Effective utilization of residual soil moisture left in the rice field by vegetables and also supplementation of harvested rain water is expected to increase production and productivity of their crops.

2. Promotion of Improved Livestock and Fishery

a. Introduction of Poultry

All total 32 numbers of tribal women of TSP-NICRA village were covered under the programme of rearing improved dual purpose poultry breed "Vanraja". The seven days old 400 numbers of chicks were distributed among the beneficiaries after completion of a training programme. Overall growth and laying performance are recorded periodically to see the impact of climate.



b. Introduction of upgraded Goat breed



Goat being commonly known as Poor mans cow play an important role in upliftment of deprived farmers. Beetal is considered to be a good milker with large body size and high fecundity. Two Bucks of improved cross breed (local and Beetal) has been introduced in TSP village in order to upgrade local goat of the village through natural services.



c. Introduction of upgraded pig breed

Seven nos upgraded piglets were 3 (Tam Worth & Desi) and 4 (Hampshire) distributed with the aim of improvement of local breed through natural services.

d. Introduction of Duck

Khaki Campbell is a egg purpose breed, which has brought a revolution in duck farming with its capacity to lay more eggs than local type hen. This breed can be reared on house hold waste food and hence it has been reared under backyard rearing as income generating activity for women village with minimum investment. 40 numbers of tribal women of TSP-NICRA village were distributed 200 numbers of seven days old "Khaki Campbell" ducklings after completion of a training programme.



e. Fishery

To meet the demand of fingerlings in nearby area the renovated 2 ha pond is being used to develop the village as fish seed village. Remunerative fish varieties were introduced in the pond with an aim to make fingerlings available to the fish rearers of nearby areas and develop TSP village Jalakiasuti as fish seed village.



3. Crop Production:

a. IPM in Tomato and Brinjal

Integrated pest Management as an improved ecofriendly tool of crop production has been demonstrated under TSP programme for Tomato and Brinjal production in 2 ha land. Pheromone traps were used for mass trapping and mating disruption in shoot borer in brinjal and tomato. This intervention reduces the insecticide load to some extent and host farmers were satisfied with the technology demonstration.



b. Banana Cultivation for nutritional security

To ensure fruit production in household level for nutritional security of the population, three (3) numbers of banana sapling was distributed to each of the households (160 Nos.) of TSP village. The variety was G-9 and tissue cultured banana sapling was collected from the Department of Biotechnology, Assam Agricultural University, Jorhat.



d. Turmeric cultivation



c. Cultivation of Rabi Crops

Toria cultivation has been practiced covering 5 Ha. of land in Cropping Sequence - Rice followed by Toria and a total of 15 farmers benefited from the programme. Cultivation of Boro Rice (Variety -Kanaklata) after Sali Rice is being promoted in the village. Crop is in seedling stage and a total of 15 farmers benefitted from the programme.

Under the programme of crop production Turmeric, Variety Megha Turmeric-1 has been cultivated in 0.87 ha of upland covering 28 numbers of households. The planting materials were distributed among the interested farmers of the village.

4. Activities for diversification of agriculture /livelihood promotion

a. Apiary



To augment the income of farmers and to reduce crop loss due to drought, initially five units of apiary have been started with five interested youth providing all required inputs including a healthy live colony each and training on apiary provided through a commercial rearer and expert.

b. Mushroom Cultivation

Mushroom cultivation plays an important role in nutritional security and upliftment of rural economy. Mushroom cultivation has been introduced and mushroom spawn were distributed among 30 farm women with an aim of entrepreneurship development. Now it has proved to be a remunerable component to empowering rural women because of its easy, short duration and low input (in terms of cost, land and labour) method of cultivation practice.



c. Low Cost Vermicompost Unit

32 nos. of vermicomposting units are initiated in TSP village with a vision to lower the cost of production by less reliance on purchased inputs and increasing soil productivity through improvement in soil health quality and also to provide additional source of income generation for farmers of the village.

5. Post Harvest Handling and Secondary Agriculture

Post Harvest Management :

Under the prevailing condition in villages, post harvest loss amounts to 10 percent of the total grain yield. Three units of Paddy storage structure-Improved Duli were distributed with an aim to minimize loss of grain during the process of utilization of paddy and reduce drudgery of farm women during the process of storage of paddy.

INSTITUTIONAL INTERVENTIONS

1. Vaccination in cattle, pig, goat and poultry :

A vaccination camp was conducted in TSP village where 294 numbers of animals were vaccinated against foot and mouth disease (FMD) The camp was conducted in collaboration with Department of Vety. & AH, Dhemaji, Govt. of Assam. The vaccines were supplied by the department. More than 300 numbers of bird were covered under the vaccination programme of poultry against Ranikhet disease which is considered as major problem of poultry in the village.





2. Animal Health Camp

Animal Health Camp was organized involving deworming of cattle, pig, goat, poultry and medical aids were given with an aim of protecting the animals from various diseases



3. Exposure Visit



Two nos. of Exposure visits for farmers of TSP village were undertaken on 12.12.13 and 18.01.13 to Biswanath Charali and Chamua village. All total 43 nos of farmer were taken to Biswanath College of Agriculture and participated in farmers fare organized on the occasion of the Silver Jubilee college of Agriculture.



The farmers also visited Technology Park maintained under AICRPDA, Biswanath Charali Centre and were shown about different technological demonstrations viz., low cost vermicompost unit, cultivation of vegetable under polyhouse, Azolla cultivation etc. Farmers also visited the Farm Machinery Testing and Training Institute (FMTTI) for North East Region and were given first hand knowledge on operation of different farms machineries like tractor, power tiller, reaper, harvester etc. Farmers were taken to Mr. Nilam Dutta Lakhimi Multi Purpose project, an agrienterpreuner at Pavoi and became familiar with various technological demonstration of low cost vermicompost preparation, dairy farming, fish breeding, nursery management and integrated farming system. Chamua village is an adopted NICRA village where 30 nos of farmers attended harvest festival and could see with various types of farming systems like double cropping system, cropping sequences like rice followed by Toria, Potato and various other ongoing activities at farmers field. They also got acquainted with management of custom hiring center by village level committee.

4. Custom Hiring Centre



A custom hiring center has been established at TSP village Jalakiasuti under TSP NICRA up scaling Project. Formally a management committee has been formed for management of this center. Two power tiller and 5 pump sets have already been given to custom hiring center and farmers of the TSP village have been able to utilize the benefit of this center.

5. Training and Awareness Programme



A total of 9 trainings were conducted in various aspects like Natural Resource Management, Animal Husbandry, Post harvest management and Managing Group Dynamics. Vocational training cum demonstration of Broiler farming was under taken. A SHG group was formed and a vocational training cum demonstration on Broiler farming was done with an idea to generate employment amongst youths.



DIAGNOSTIC VISITS



Diagnostic visits are conducted from time to time in the TSP village and according to need and report from villagers.

PROJECT COORDINATOR'S VISIT TO TSP VILLAGE



Linkages Developed



TSP Village was not having a training hall and there was also a requirement of a room for keeping equipments and machineries like power tiller, pumpsets, power sprayers, knapsacks, foot sprayers, portable sprinklers to be procured for custom hiring center. On knowing the



fact the Dhemaji District Administration sanctioned an amount of Rs 10 lakh under RSVY for construction of Agricultural Training Hall and a room for keeping equipments/instruments of custom hiring center.

ZONAL PROJECT DIRECTOR'S VISIT TO TSP VILLAGE



TSP VILLAGE IN THE EYES OF PRESS



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