



TSP NICRA NEWSLETTER

Krishi Vigyan Kendra, Dhemaji

Assam Agricultural University



With Financial assistance from CRIDA, ICAR, Hyderabad

TSP NICRA NEWSLETTER

Vol. II

Message from the Director of Research (Agri.), AAU, Jorhat



I am glad to know that KVK, Dhemaji is bringing out the second issue of News letter of the TSP- NICRA to showcase the various activities undertaken under the project supported by AICRPDA Biswanath Chariali College of Agriculture. I also congratulate and appreciate the scientists of KVK, Dhemaji

for their relentless service to the farmers of the district as well as in the NICRA village which is bringing visible behavioural, technological and economical changes among the tribal farmers. Implementation of location specific, climate resilient agriculture and allied technologies to mitigate the adverse climatic conditions are the main objectives of the project which have successfully been carried by the KVK from the beginning.

I once again congratulate the Programme Coordinator and the other staff of KVK, Dhemaji and Chief Scientist, AICRP on Dry Land Agriculture, BNCA for bringing out the newsletter and wish them all success for their future endeavours.

(Dr. G. N. Hazarika)

Message from the Director of Extension Education, AAU, Jorhat



I am happy to know that KVK, Dhemaji is going to publish the TSP-NICRA newsletter for the second time reflecting their activities of the TSP-NICRA up scaling programme sponsored by CRIDA, ICAR, Hyderabad with collaboration with All India Coordinated Research Project on Dry land Agriculture, BNCA center,

AAU. I appreciate the efforts put by the KVK in bringing the newsletter which will reveal the overall picture of the NICRA village at a glance.

The TSP programme being implemented by KVK, Dhemaji at Jalakiasuti village is making significant achievement in boosting farmer's income and thus improving their livelihood. Activities carried out by the scientists in the village will definitely be important for other stakeholders like farmer, extension worker, policy maker etc.

I congratulate and appreciate the Programme Coordinator and his team for their hard work and wish them all success.

(Dr. H. C. Bhattacharyya)

Message from the Chief Scientist, BNCA, AICRPDA



All India Coordinated Research Project for Dryland Agriculture, Biswanath Chariali Center has been implementing the TSP programme since 2012-13 at Jalakiasuti village under Sissiborgaon development block of Dhemaji district in collaboration with Krishi Vigyan Kendra, Dhemaji, Assam Agricultural University. The financial assistance for implementation of this programme is being received from the Central Research Institute for Dry land Agriculture, ICAR, Hyderabad, under All India Coordinated Research Project for Dry land Agriculture (AICRPDA). The village Jalakiasuti experiences both flood and dry spells, which depicts the unfavorable agro-climatic condition of the district. Various resilient technologies have been demonstrated in agriculture and allied sectors based on experiences gathered from successful implementation of NICRA programme under AICRPDA, Biswanath Chariali Center at Chamua and Ganakdalani villages of Lakhimpur district of Assam as well technology generated by Assam Agricultural University. A custom hiring center and an agricultural training center have been established for capacity building. The tribal farmers have been benefitted through various programmes for livelihood promotion. Efforts have been made for sustainable use of natural resources such as renovation of a public pond covering 2 ha area into a rain water harvesting structure for use of the harvested water during lean period for life saving irrigation as well as community based pisciculture. Interventions like production of vermicompost, bee keeping, mushroom cultivation, rearing of livestock, weaving etc. have been introduced for Economic empowerment of the participant farmers. I am glad enough that the Krishi Vigyan Kendra, Dhemaji is going to release its second issue of TSP Newsletter reflecting the activities undertaken during 2014-15. I express my sincere thanks to the Honorable Vice-Chancellor, Director of Research (Agri) and Director of Extension Education, Assam Agricultural University, Jorhat for their able guidance and support during implementation of the programme. The constant support and guidance of Dr.T.C.Baruah, Associate Dean B.N. College of Agriculture, AAU is thankfully acknowledged. The constructive criticism and guidance received from Dr.G.Ravindra Chary, Project Coordinator, AICRPDA, CRIDA is gratefully acknowledged. I would like to place on record my thankfulness and gratitude to Dr.Ch. Srivaiyasa Rao, Director CRIDA for his able guidance and inspiration for successful of the programmes. The constant support received from the district administration of Dhemaji district is gratefully acknowledged. I congratulate the Programme coordinator and the entire staff of Krishi Vigyan Kendra, Dhemaji for their collective effort for successful implementation of the TSP programme and bringing out this publication.

(Dr. P. K. Sarma)

Message from the PC's Desk

Agriculture is the indispensable sustenance for livelihood of more than 85% of the people in Dhemaji district. Paddy is the major crop, which occupies more than 55% of gross cropped area followed by mustard, blackgram, potato and maize. Vegetables and fruits are also cultivated in moderate scale. Piggery, poultry, goat rearing, fishery and sericulture are major agricultural allied activities in the district. The Jalakiasuti, a village under Sisiborgaon development block residing 160 numbers of Sonowal kachari tribal farm family depict the agricultural scenario of the district where the Krishi Vigyan Kendra (KVK) Dhemaji has been implementing TSP-NICRA up scaling programme funded by CRIDA, ICAR, Hyderabad in collaboration of ACRIPDA BNCA centre of Assam Agricultural University since 2012-13. All the staff of KVK, Dhemaji has been rendering indefatigable efforts for implementation of the diversified programme with constant support and advices from AICRPDA, BNCA center; CRIDA, ICAR, Hyderabad; Directorate of Research and Directorate of Extension Education, AAU, Jorhat and RARS North Lakhimpur. As a result, we may able to highlight our activities through this Newsletter. The experience from this project will help us to make more efficient service towards the farming community of the district. Here I take opportunity to thank all without whom this publication of this Newsletter would not have been possible.

Programme Coordinator (i/c)
KVK, Dhemaji



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

The villagers of Jalakiasuti are purely dependent on agriculture and allied sector for their livelihood. But natural calamities (draught and flood) are major hurdles for agricultural development in spite of their hard labour. A water course namely Jalakiasuti originating from the hillock of Arunachal Pradesh is streaming through the village which is now causing heavy damage due to frequent flood and sand deposition in the cultivable lands.

Natural calamities such as flash flood, draught spell, unseasonal raining etc are reason for gradual shifting of farmers involvement towards agricultural activity to other occupations. Out of total agricultural land 15 to 20 per cent has already been low productive due to deposition of sand and silt. Incidence of heavy pest and disease infestation in their crop particularly lemon, betelvine, coconut, vegetables in their *bari* (homestead garden) system and weed in field crops has been observed. Livestock including poultry of backyard system are also frequently attacked by different diseases even in epidemic form.

Despite of these constraints and barriers, some positive notes and opportunities has been observed in the village. Human resources like educated and unemployed youths of the village who were previously not interested in agriculture due to climatic aberration can be converted to fruitful resources by providing necessary assistance in the form of inputs and training etc. As the village is rich in natural resources, out of which a community pond of about 2 ha. of land was lying unused can be converted to water harvesting structure and fish pond.

During the execution of the TSP-NICRA up scaling programme various interventions has been carried out under the component of natural resource management, contingency crop planning, livestock, fishery, diversified agriculture for livelihood promotion, post harvest handling and secondary agriculture, capacity building and institutional arrangement. Some encouraging results has been achieved till now and in due future course of action the village will be a appropriate model to mitigate the ongoing weather eccentricity and climate change.

Rainfall analysis in Dhemaji district

Month	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	Normal **
January	77	24.15	24.19	54.22	6.26	0	11.24	28.73	8.41	0.75	27.7
February	160	87.26	73.34	40.49	40.68	5.12	13.09	2.44	0.5	75.5	48.6
March	262	41.55	14.81	50.49	129.86	215.34	203.78	49.53	118.82	100.32	76.7
April	289	159.21	244.13	140.68	127.32	399.04	176.77	233.87	154.3	150.62	165.5
May	492	450.13	531.54	247.64	227.73	279.44	188.25	429.12	230.57	210.55	331.9
June	892.7	617.5	641.19	462.11	509.27	614.6	340.36	377.34	384.02	381.19	528.3
July	708.84	575.83	828.56	734.33	522	699.48	637.91	827.92	508.18	246.61	605.2
August	459.67	566.26	395.8	591.1	817.55	699.65	452.29	345.92	300.41	625.1	467.6
September	162.93	269.14	223.72	301.05	140.89	467.79	405.29	605.13	190.48	213	424.1
October	80.2	173.46	144.25	160.86	141.04	71.78	36.06	168.11	82.33	11	140.3
November	45.7	77.91	17.78	17.78	28.34	41.43	10.04	12.44	0	13.2	23
December	0	13.56	0	0	10.17	13.97	12.7	18.54	0	0	20.4
Total	3630.04	3055.96	3129.31	2800.75	2701.11	3507.64	2487.78	3099.09	1978.02	2027.84	2859.3

Normal

Surplus

Deficit

** Normal rainfall data as per IMD as mentioned in Statistical Handbook Assam, 2013

Conversion of community pond to fish pond cum Water Harvesting structure

The public pond of covering 2 ha land was renovated as a fish pond cum water harvesting structure. About 1000 m length of the embankment was raised up to av. 3- 4 feet height. Three numbers of water harvesting point was constructed so that water can be easily collected and delivered to nearby fields. To prevent the escaping of fishes from the pond a concrete gate fabricated with iron net was constructed. During the period, harvesting of fish from the pond earned a total of Rs. 16,000.00 (Rupees sixteen thousand).



Bore well recharge

To ensure regular water supply to the drought affected cultivable areas of the village efforts were made to recharge three (3) numbers of borewell with a view to increase cropping intensity. The area covered under these borewell may go for sali rice –toria cropping sequence.

Strengthening the poultry sector:

Poultry rearing is a traditional practice of the tribal farmers of TSP-NICRA village, especially women members of the family engaged in this activity. Under the up scaling programme all the farm families of the village were provided 30 nos each (total 4800 chicks) of improved dual purpose breed Vanaraja. Along with the chicks necessary feed, medicines and vitamins were also provided. Periodical vaccination programmes were also conducted. Successful rearing was observed especially by the women folks as a profitable option towards income generation by selling eggs and meat.



Introduction of upgraded pig breed

Ten nos of upgraded piglets (Hampshire cross) were distributed among ten farmers with the aim of improvement of local breed through natural service and livelihood promotion.

Construction of scientific pig sty:

Ten nos of low cost pig sty with concrete post and floor were constructed to demonstrate improve methods of pig rearing.



Local Goat breed upgraded:

In the earlier year two bucks of improved beetal cross breed were introduced in the TSP village in order to upgrade local goat of the village through natural service. Through this service, more than 40 upgraded offsprings were obtained in and around of the village.



Crop production

Banana cultivation:

To ensure fruit production in household level for nutritional security of the population, 2223 nos of banana sapling (Var: Borjahaji) were distributed among 48 farm families.





Pineapple cultivation:

About 5920 nos pineapple suckers were distributed among five farmers to encourage its cultivation as commercial scale.



Assam lemon

The TSP village is leading producer of Assam lemon. As the availability of planting material is limited it was decided to encourage five farmers for cultivation providing 660 nos cuttings and other inputs like fertilizer and pesticides.

Blackgram cultivation

Blackgram (KU 301) was cultivated in the village to utilize the fellow upland land which are not used for normal paddy cultivation. Seeds and other inputs were supplied after completion of training programme. The average yield was recorded 13q/ha and the farmers got satisfactory return by selling it in the local market.



Toria cultivation:

During Rabi, 2014-15 Toria cultivation was carried out in 25 ha of land area covering 37 farmers with variety TS-38 and TS-36 in cropping sequence of Sali Rice followed by Toria. About 45 qtl of toria was harvested by the villagers which will cater their yearly requirement of mustard oil.



Potato cultivation becomes remunerative agriculture:

Potato cultivation was carried out in 2.5 ha of land area covering all the farm families with inputs like 56 q of tuber potato, fertilizer, pesticides etc. The total production of potato was reported 550 qtl and on sale of this produce they have earned Rs.4,40,000.00 @ Rs.8.00 per kg.



Cultivation of Rabi vegetable:

Rabi vegetables like Pea, Pumpkin, Tomato, Brinjal, Cabbage, Capsicum and leafy vegetables were cultivated towards income generation and livelihood promotion. Use of custom hiring Implements like power tiller, pumpset, borewell etc. was observed by the farmers which encouraged them to cultivate different crops at a time.



Input supplied to the village under demonstration:

Pineapple Suckers (5920 Nos), Assam lemon cuttings (660Nos), Banana suckers (2223 Nos.), Blackgram seed (54 kg), Toria seed (187.5kg), Sesasum (for 1ha), Potato seed tuber (5600kg), Rabi vegetables seed for 5.75ha (Pea, Pumpkin, Totato, Brinjal, Cabbage, Capsicum and Leafy vegetable), Piglet (10 Nos.), Vanaraja chick (4800Nos), Fertilizers for crop demonstrated, Pesticides for crop demonstrated, Feed, vaccine and medicine for livestock.



Vermicompost production from low cost unit:

Vermicompost production has been emerged as the most promising income generating activities among the farmers of the village. With the popularization of the low cost units, farmers went on expanding additional units as well as concrete pits to increase production and sustainability. A total of 50 qt. vermicompost has been produced from the existing low cost tanks.



Aplary

Apiary become a successful income generation activity in the village. Five bee units are running successfully and have reported generating additional income for the farmers.



Animal health camp:

A total of nine (9) numbers of animal health camps were conducted in poultry to vaccinate F1, Lassota and R2B. More than 150 cattles were vaccinated against the foot and mouth disease in collaboration with State Deptt. of veterinary.

Three (3) animal health camps was organized involving deworming of cattle, pig, goat, poultry and medical aids were given with an aim of protecting the animals from various diseases



Agricultural Training Hall

To inspire the farmers of the village and after observing the activities by the Deputy Commissioner, Dhemaji the district administration constructed a agriculture training hall at the center of the village to fulfill the need of the farmer which is presently used as training hall and implementation shed of custom hiring center.



Exposure visit

A two days exposure visit cum training programme was attended by two farmers of the village at BN College of Agriculture on "Farmers Awareness on Gramin krishi Mausam Seva".



Skill development of rural youth:

Four numbers of youths were sent to participate in 14 days training cum exposure visit on "Modern Agriculture practices" organized by SIRD, Guwahati with an objective to develop skill in repairing, maintenance and management of farm machineries.



Capacity building of women farmer:

Four lady farmers were sent to Assam Agricultural University, Jorhat-13 to participate one month duration "Certificate course on dyeing and printing" at the Department of Clothing & Apparel Designing, College of Home Science. The farmers also visited other Departments in the university to get a firsthand experience.



Strengthening of Custom Hiring Centre:

To accelerate farm mechanization in the TSP village a Custom Hiring Centre (CHC) was established in 2013-14. To strengthen the CHC, a Power sprayer, a set of Sprinkler Irrigation System, Eri spinning machine, Sewing machine and a Power weeder were supplied during the reported period. Thus the farmers could avail the service of various machineries and implements at a lower cost and at required time. In addition the centre is generating around fifty thousands of rupees as hiring charge for self sufficiency and future expansion.

Present Strength: Ten (10) nos. of Knapsack sprayer, Ten (10) nos. of Foot sprayer, two (2) nos. of power sprayer, one (1) no. of Sprinkler Irrigation set, one (1) no. of weighting balance, Two (2) numbers of Power tiller, Five (5) numbers of Pimp Set, 3 nos. of sewing machine, 15 nos. of Spinning machine, 1 Honda Generator and 250 mtr. PVC pipe.

Training programmes for capacity building:

Three nos of training programme were conducted on improved cultivation practices of Black gram, toria and potato covering 74 farmers. On the occasion of The World Veterinary Day 2014, a awareness camp cum training was organized in the village. An animal health camp was also organised as part of the celebration. Besides the one day training programme two numbers of vocational training programmes were conducted on Eri spinning and vermin-compost production respectively.





Diagnostic
visit

Dignitaries visit



Director of Extension Education, CAU Imphal



Director of Extension Education, AAU, Jorhat



Project Coordinator, CRIDA
visit to TSP-NICRA village



Zonal Project Director, ICAR Zone III, Borapani

TSP Village in the eyes of Press



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