## Nanritam Krishi Kendra comprehensive agriculture development project of nanritam in rural purulia

Barandanga, Para, Purulia West Bengal, India

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# BACKDROP

Among 150 'disadvantaged' districts identified by the Planning Commission of India, seven are in West Bengal and all three western districts namely Bankura, West Medinipur and Purulia belong to this category. Within the district of Purulia, more than 40% of the villages are officially classified as backward. Overall, one finds more people below the poverty line than those above it.

Percentage availability of land for cultivation is less compared to most other parts of the state due to vast stretches of the district being under rocky plateau, degraded wastelands and forests. The land is undulating and the soils are lateritic which are not as fertile as the alluvial soils of the Gangetic plains.

Majority of arable land is monocropped with transplanted rice which is grown primarily for food and only the surplus if any, is sold. The crop is dependent on monsoon rains that are erratic in nature. Less than  $1/3^{rd}$  area has any irrigation facility, its main sources being the tanks and dug wells; a small area is covered by canals.

Like the rest of West Bengal, the land-holding size in Purulia is one of the smallest in the country. That is another limiting factor for farming to be productive and rewarding. On the one hand agricultural productivity is sub-optimal while on the other the prices farmers get is not remunerative. Among the various factors responsible for this situation, is poor rural infrastructure which is not conducive for trade and commerce to thrive.

Yet, it is like poverty in the land of plenty. Resources are abundant but not being harnessed in converting these into wealth. Among those relevant to agriculture, the first is water. An average annual rainfall in excess of 1300 mm is a nature's gift, the worth of which is often overlooked and Purulia is described as a "dry" place. Instead of letting a lot of water to run off to the rivers and get wasted, if a portion of it is properly captured and utilized for irrigation purposes, cropping intensity and crop yields can be substantially increased and farming can be judiciously diversified. This together with application of appropriate technology, can make agriculture flourish and help bring about overall total socioeconomic uplift of Purulia's agriculture.

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## The Beginning

With this bleak and dismal picture in the backdrop, Nanritam first decided to take up Sustainable Agriculture project in May 2010 in collaboration with Syngenta Foundation India. The primary objective was aimed at increasing income opportunities of farmers in Para block, most of whom were small holders. The initiative assumed that smallholder agriculture can be made remunerative by raising productivity with the help of technology and also that cash income can be generated from very small holdings by growing high value vegetables.

For driving this program, a small team of grass root-level field extension workers was put together which was led by a qualified agricultural extension executive. In an area where farmers are starved of knowledge and lack access to the right inputs, pilot efforts initiated by Nanritam Krishi Kendra (NKK) with a view to filling these voids, brought about a visible improvement in the quantity and quality of the produce by the farmers.

## The Interventions

Interventions like replacing farm-saved seed with certified seed; growing of rice following SRI technique; line - sown wheat and growing high value vegetables generated positive results at levels higher than expected. Encouraged by the initial success, the interventions were scaled up and diversified.







NANRITAM KRISHI KENDRA (Nanritam Agriculture Unit) - work began in May, 2010 in 9 villages of Para block of Purulia district, West Bengal with 70 farmers participating initially. At present 864 farmers are involved in 23 villages of Para block.



13 villages – Livelihood promotion programme going on through SHG (self help group of women) & FIG(Farmers' interested group).

10 Villages - work going on through non-

**SHG Farmers** 

Total coverage area – 1500-1700 hectare

**Total farmers -864** 

FIGs & SHG members = 541

Non SHG Members -323

FIGs – 22 groups ; No. of members - 277

SHG's - 22 groups ; No. of members - 264

### At Para Block we work in 6 Gram Panchayets.

Jabarrah Jhapra Bhouridih Udaypur Nadiha-Surulia Bahara Dubra

## **Present Activities**







Name of crop - Hybrid Paddy Variety – NK-5251, NK-6302, PHB-71 & PAC -835. No of farmers - 27 Cultivated Area (ha.) - 3.16 Average Yield (t/ha.) – <u>7.31</u>





## AGRICULTURAL ACTIVITIES 2012-13

Name of crop - Paddy, Variety – Sahabhagi No of farmers - 281, Cultivated Area (ha.) - 29.02 Average Yield (t/ha.) – <u>4.46</u>



Name of crop - Blackgram Variety – Saradha No of farmers - 46 Cultivated Area (ha.) - 3.8 Average Yield (Kg/ha.) – 535







## **Promotion of Rabi Vegetables**



Name of crops	Cultivated area (Ha.)	No of farmers
BRINJAL	11.07	160
ΤΟΜΑΤΟ	9.33	147
C. FLOWER	3.66	102
CABBAGE	4.14	77





## **Promotion of Rabi Crops**

Name of crops	Cultivated area (Ha.)	No of farmers
Wheat	13.31	103
Mustard	10.08	117

## Wheat - line sowing





### Promotion of Summer Vegetables

Name of crops	Cultivated area (Ha.)	No of farmers
Bitter gourd	2.07	75
Rich gourd	1.58	64
Pumpkin	1.42	58
Cucumber	1.37	41
Okra	5.67	105
Onion	4.03	97
Bottle gourd	2.62	73

## **REDUCING MORTALITY OF DOMESTIC ANIMALS**

#### ORGANIZING VACCINATION AND TREATMENT CAMPS

17 camps in 9 villages, on HSBQ for cattle's 472 beneficiaries and 1351 animals

9 camps in 9 villages, (PPR for Goat)178 beneficiaries and 778 animals



VACCINATION AND TREATMENT CAMPS

# LINKING FARMERS WITH POPULAR GOVT. SCHEMES

MGNREGS – Hapa, Fruit Orchards, Social Forestry	Completed 10 Hectare Fruit Orchard & 10 Hectare Social Forestry.
<ul><li>25 ha. Fruit orchard processing started In</li><li>2013 -14. 50 hapas will be completed in</li><li>2013 -14</li></ul>	On going .
COLLABORATION WITH DEPT. OF AGRI. AND HORTI.	Linking with 5 FIGs (70 farmers) & 3 SHGs(32 members ) For GOVT scheme, for Kharif veg. cultivation.

### MGNREGA work at – Tilgora , Para , Purulia





## **Agricultural Planing For The Year of 2013-14**

#### 1. Promotion of people's institution

- ✓ Women managed Self Help Group
- ✓ Farmers Group

#### 2. Farming system support through agriculture

- ✓ Paddy seed multiplication (Foundation to Certified 5 ha.)
- ✓ Vegetable seed multiplication (O.P. Varity 1.5 ha.)
- ✓ Tomato seed multiplication (hybrid 0.33 acre )
- ✓ Trail & Demonstration for vegetable cultivation.

#### 4. MGNREGA

- $\checkmark$  Orchard development with soil moisture conservation measures.
- $\checkmark$  Plantation with soil moisture conservation measures.
- ✓ Small water harvesting structure (WHS)
- ✓ Check dam
- ✓ Dug well

- 3. Capacity building
  - ✓ Training on Vegetable cultivation & Implementation
  - ✓ Training on Varmi-compost & Implementation
  - ✓ Training on Goat rearing & Implementation
  - ✓ Training on SHG Promotion & strengthening.
  - ✓ Marketing linkage.

## **KHARIF ACTION PLAN 2013-2014**

SI. No.	Activity		Cultivated area	No of beneficiaries
1		Paddy seed multiplication (Foundation to Certified )	5 ha.	30
		Hybrid paddy cultivation	10 ha.	70
		Sahabhagi paddy cultivation	150 ha.	350 (.approx.)
2	COLLECTIVE PRODUCTION OF KHARIF VEGETABLES (Marketing linkage)	Crops- <u>Brinjal</u> tomato & bitter gourd.	5 ha.	5 ElGs.
3	Kharif Maize	Variety – NK 30	3 ha.	3 ElGs.
4	Kharif – Pulses	Black gram , Pigeon pea	3 ha. + 1 ha.	5 FIGs + 1 FIGs
5	Kharif – Onion		4.33 ha.	33 farmers
5	Oilseed	Crops – Groundnut	1 ha.	2 ElGs.
6	Introduction of new techniques. (Vegetable seedling reusing)	Coco-pit media & Portray	50,000	NKK campus
7	LINKING FARMERS WITH POPULAR GOVT. SCHEMES (MGNREGA)	Hapa, Fruit Orchards, Social Forestry	No of 4 villages	
8	REDUCING MORTALITY OF DOMESTIC ANIMALS	ORGANIZING VACCINATION AND TREATMENT CAMPS	15 working villages.	
9	FIGs & SHGs Promotion & strengthening	Hand holding support	15 working villages.	

## **Visit of the Dignitaries**



Dr. Kaushik Basu, Vicepresident and Chief Economist of World Bankvisits NKK fields

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Mr. Ashok Mohan Chakraborty, Former Chief Secretary of West Bengal visits NKK fields

Mr. Golam Ali Ansari, District Magistrate Purulia, Mr. Dibyendu Das, Deputy Director of Agriculture-Administration, Mr. Alok Mondal, Horticulture Officer visits NKK fields













# Nanritam

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