

Capacity Building of Community Hunger Fighters

2nd Residential Training in Koraput

During the 1st residential workshop for training Community Hunger Fighters (CHF), topics related to nutrition and balanced diet were covered. In continuation, 2nd training was conducted to help the participants to understand linking agriculture to nutrition and related entitlements.

Objectives

1. To help participants share their experiences of the earlier workshop on nutrition and how it has helped them in their daily lives.
2. To help them reflect on how they had been taking decisions on crop cultivation and how they would like to do it now.
3. To help them undertake crop planning for the forthcoming season and for the entire year balancing household nutritional and economic needs.
4. To help them identify further training needs and the entitlements that they wish to seek and present it before the authorities for further discussion.

Participants

17 CHFs who attended the 1st training and 6 new participants attended the one day training. Details are given in Annex 1.

Duration of workshop

One day training was held on 23rd October 2016 at Biju Patnaik Centre for Medicinal Plant, MSSRF campus, Odisha.

I. Introduction and sharing of experience from 1st training

The workshop started with sharing the experiences and lessons learnt from the first training programme. The CHFs shared that they have started to include variety in their diet.

Some of main changes that they have brought in their life style are

- ✓ The consumption pattern was mainly cereals. After the training, the CHFs shared the importance of balanced diet to their family members and neighbours
- ✓ Started taking tea with milk

- ✓ Ragi gruel is taken in the form gruel (very diluted), after the training, it is prepared as porridge (thick)
- ✓ Pulses were consumed twice or thrice a week and green leafy vegetables were consumed occasionally. After the training, CHF's are trying to increasing the frequency pulses and green leafy vegetable in their diet
- ✓ Importance of diet for pregnant and lactating women on the health of children were shared by the CHF's to the nearby households

II. Linking agriculture to Nutrition

The participants were divided into the following groups depending on their agriculture land holding pattern; Group 1: those having all three types of land: Low land, middle land and upland. Group 2: those having upland and low land; Group3: those having middle land and low land.

They were requested to do the agricultural planning for all the seasons round the year in half acre of land in with the given land types.

The cropping pattern suggested by the groups is presented in the following tables.

Table 1. Agricultural planning by Group 1 with all three types of land.

Land type	Kharif	Rabi
Upland	Sesame, Pumpkin, Niger, Horse gram, Red gram (mix cropping pattern), Maize, Little millet, Black gram, Sorghum, Foxtail, ground nut, on bunds, Cow pea, Rice bean and Cucumber are being grown.	Keeping fallow
Middle Land		Ragi, Little millet, maize, followed by vegetables: Tomato, Radish, lady's finger, Onion, carrot, groundnut, chilly, Egg plant. Fish farming and duck rearing. On the bunds fruits like banana, coconut are grown If there is no water in the land then they are left fallow
Low land	Paddy, Fish, crab	Green gram, Black gram, Groundnut, Tomato, Bitter gourd, Pumpkin, Bottle gourd

All the food crops cultivated were grouped into the respective food groups. It was found that thirty one crops could be grown, assuming the availability of water. These crops could be grouped into six major food groups.

Table 2. Classification of crops into food groups (all three types of land)

Cereals	Paddy ,Maize, Little millet, Sorghum, Foxtail, Ragi,
Pulses	Horse gram, Red gram, Black gram, Cow pea, Rice bean, Green gram
Vegetables	Pumpkin, Cucumber, Tomato, Radish, Lady's finger, Onion, Carrot, Chilly, Brinjal, Bitter gourd, Bottle gourd
Fruits	Banana
Oil seeds	Sesame, Niger, Ground nut, Coconut
Animal foods	Fish, crab, duck

Table 3. Agricultural planning with upland and low land

Land type	Kharif	Rabi
Up land	Sorghum, Little millet, Black gram, Ragi, red gram, Foxtail millet	Keeping fallow
Low land	Paddy Fish pond, crab	Groundnut, Green gram, Black gram, Red gram, If irrigation is there –vegetables like Radish, Lady's Finger, Tomato, Cabbage, Onion, egg plant, Beans

Group 2 consisting of those with upland and low land had planned for thirteen food crops if rain fed and six more vegetable crops if irrigation facility was available. These crops could be grouped into five major food groups (Table 4).

Table 4. Classification of crops into food groups (upland and low land)

Cereals	Paddy , Little millet, Sorghum, Foxtail, Ragi,
Pulses	Red gram, Black gram, Green gram
Vegetables	Radish, Lady's Finger, Tomato, Cabbage, Onion, egg plant, Beans
Oil seeds	Ground nut
Animal foods	Fish, crab

Table 5. Agricultural planning with middle land and low land

Land type	Kharif	Rabi
Middle land	Paddy, Ragi, Little Millet, Maize, Black Gram, Radish on bunds	Pumpkin, Tomato, Chilli, Amaranthus, Radish, Cauliflower, Onion, Ladies Finger, Beans, Egg plant

Low land	Paddy, Fish, crab	Groundnut, Green gram, Black gram, Bengal gram, Finger millet, Maize, Vegetables like: Pumpkin, Radish
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Group 3 consisting of middle land and low land had planned for 28 varieties of crops assuming the availability of irrigation throughout the year. These crops could be classified into five major food groups (Table 6).

Table 6. Classification of crops into food groups (middle land and low land)

Cereals	Paddy, Ragi, Little Millet, Maize,
Pulses	Black Gram, Green gram, Bengal gram
Vegetables	Radish, Pumpkin, Tomato, Chilli, Amaranthus, Cauliflower, Onion, Lady's Finger, Beans, Brinjal
Oil seeds	Groundnut
Animal foods	Fish, crab

From the above activity, it emerged that 6 food groups could be grown when all three types of land were available and 5 food groups when two types of land were available. Group 1 had included fruits in their plan and other two groups agreed that cultivation of fruits was possible with any two types of land combination.

It was possible to achieve dietary diversity with 6 food groups from all three types land, at a landholding of half an acre each. Similarly, 5 food groups could be obtained from combination of any two types of land with a landholding of less than half an acre each.

III. Entitlements

Entitlement cards were distributed to the participants. These outlined key entitlements and schemes related to agriculture, health, women, children and specific to tribal communities. The participants were divided village wise and requested to list the entitlements that they wished to apply for and share their experience in accessing the entitlements.

Table 7. Village wise requirement of entitlements are as follows;

Village	Requirement
Atalguda	Indira Awas, Check dam, Panni panchayat/Multipurpose pond
Bhejaguda	Tube well, Indira Awas, Farmer Insurance (Biju Krisaka Kalyana Yojana),
Chikima	Lift irrigation, solar water pump, BPL card, farm pond, Toilets, Indra Awaas
Kurkuti	Lift irrigation, farm pond

Rauliguda	Solar water pump, Farmer Insurance (Biju Krisaka Kalyana Yojana), Veterinary vaccination, check dam, tube well/well, farm pond
Maliguda	Check dam, Solar pump,
Banuaguda	Solar pump, NREGA, Dug well, Annapoorna Yojana, old pond renovation

Block Development Officer (Boipariguda block) Mr. Mataram Leyangi came as a special guest and interacted with the participants. A summary of his presentation is given below.

- ✓ Block level meetings are held every month on 5th and 21st, where all official discuss about various schemes. The villagers can also attend to know about the current schemes.
- ✓ For constructing a multipurpose pond –Rs. 2.40 lakh is provided
- ✓ Assistant agriculture officer can be contacted for agriculture related loans
- ✓ Indira Awas is now called as “Pradhan Mantri Gramin Awaas Yojana”. Now the amount has been increased from Rs. 75000/- to Rs 1.30 lakh.
- ✓ For lift irrigation, the villagers have to first pass a resolution in *palli sabha*, followed by the Gram panchayat before approaching the BDO. Executive Engineer will inspect the place of construction and if approved the BDO will give the sanction.
- ✓ If 60% of livelihood activities are agriculture related then Mokrushi Yojanana scheme will apply.
- ✓ Approval for tube well is now handled by Grama panchayat
- ✓ If there is 33% of crop loss, the farmer can approach agriculture officer and apply for agriculture insurance. Insurance amount of s. 30/year is collected and if the farmer meets with any accident, a maximum of Re. 1 lakh is provided.
- ✓ Participants said that they were not receiving MGNREGS payment properly. BDO asked them to link aadhaar card to the bank account so that the payment would go directly to the bank. If there was any problem related to payment they could submit a statement to the concerned official to get payment.

IV. Linking production to consumption

The participants continued to work in the same groups that were formed for activity 2 and were requested to calculate the following;

1. Monthly and yearly food requirement for a family of 5 adults
2. Production from half acre of land. For three categories of land types – 1. low land, middle land and up land, 2. Low land and up land, 3. Low land and middle land.

3. Gap between production and requirement and how this would be met.

Table 8. Production and food requirement with half acres of three types of land

Food groups	Monthly requirement	Yearly requirement	Production	Gap (yes/no)	How to meet the gap
Rice	80 kg	960 kg	14 quintal	No	
Ragi	15 kg	180 kg	2 quintal	No	
Other millets	-	-	2 quintal	-	
Pulses	10 kg (consumption of pulses is reduced on consuming animal foods)	120 kg	120 kg	No	
Vegetables	30 kg	360 kg	270 kg	Yes	Excess of other foods can be sold and vegetables can be brought
Animal foods	4 kg	48 kg	60 kg (40 kg chicken, 10 kg egg and 10 kg fish)	No	
Fruits	4 kg	40 kg	30 kg	Yes	i) Can be collected from jungle according to seasons ii) Fruits can be exchanged with sprouted pulses and nuts

Discussion

According to the group members, it was possible to meet the annual requirement of cereals and pulses with a landholding of half an acre of all three types of lands. However cereals and pulses have to be stored for the whole year and hence post harvest technological means for proper storing are important. The production of vegetables and fruits fell short of the requirement (production estimates based only on land and not on kitchen garden output) but can be bought from the market through the sale of other food produced in excess. The forest also provided with small game, fruits and vegetables.

Table 9. Food requirement and production from Upland and low land

Food groups	Monthly requirement	Yearly requirement	Production	Gap (yes/no)	How to meet the gap
Rice	75 kg	9 quintal	6 quintal	Yes	3 quintal from PDS
Ragi	18 kg	216 kg	200 kg	Yes	Purchased from Market
Other millets	-	-	-	-	-
Pulses	12 kg	144 kg	100 kg	Yes	Purchased from market Animal foods can be added – wild animals
Vegetables	20 kg	240 kg	120 kg	Yes	
Animal foods	2 kg	24 kg	40 kg	Yes	
Fruits	4 kg	48 kg	25 kg	Yes	

Discussion

In this group, with a combination of upland and low land, the agricultural food production does not support household requirement throughout the year for any food group. Hence food has to be accessed from other sources as well such as the Public Distribution System, purchase from the market, from the forest, through backyard poultry etc.

Table 10. Food requirement and production from Low land and middle land

Food groups	Monthly requirement	Yearly requirement	Production	Gap (yes/no)
Rice	60 kg	720 kg	935 kg	No
Ragi	10 kg	120 kg	200 kg	No
Other millets (glv)	-	400 kg	400 kg	
Pulses	-	116 kg	225 kg	No
Vegetables	-	250 kg	1500 kg	No
Animal foods	-	50 kg	70 kg	No
Fruits	-	-	-	-

Discussion

In this group also it was found that the combination of half an acre each of low land and middle land could not produce the required food to meet the household nutrient requirement throughout the year for a family of five, except for vegetables. Some of the participants observed that the production estimate of 1500 kgs of vegetables was not possible from one acre of land. The group members clarified that this quantity could be produced with mono cropping or cultivating only tomatoes (4 quintals) or brinjal (2 quintals). This was endorsed by those belonging to the Mali community who are experienced in vegetable production. Poultry is reared for home consumption and usually not for sale.

Overall Discussion

- The household cereal requirement was estimated by the various groups based on actual consumption and not on RDA and this ranged from 60 kgs to 80 kgs per month with the three groups. The lowest estimate for rice was by the second group though the requirement was higher than that of other groups.
- The household requirement for other food groups was based on RDA of adult male doing heavy work.

- ✓ Gap between requirement and production is maximum for the group with a combination of low land and middle land.
- ✓ The main goal is to bring in dietary diversity with maximization of production. Planning is needed to reduce the gap between production and requirement.

Annexure

Annexure 1

List of participants of 2nd Community Awareness training Programme

COMMUNITY NUTRITION AWARENESS TRAINING PHASE -I &II						
SL	NAME OF THE PARTICIPANTS	VILLAGE	AGE	SEX	CASTE	Particulars
1	DAMU PARAJA	BANUAGUDA	48	M	ST	
2	PRAHALADA NAYAK	BANUAGUDA	29	M	ST	
3	GHASAMANI DALEI	BANUAGUDA	39	F	OBC	
4	NAYANA SUKRI	BANUAGUDA	25	F	OBC	
5	PRAHALAD PUJARI	BHEJAGUDA	55	M	ST	
6	BALARAM HARIJAN	BHEJAGUDA	44	F	SC	
7	KAMALA PUJARI	BHEJAGUDA	44	F	ST	
8	DASU MUNDAGUDIA	RAULIGUDA	48	F	ST	
9	BUDURI MUNDAGUDIA	RAULIGUDA	40	F	ST	
10	SHYAM NARIA	RAULIGUDA	40	M	ST	
11	MAHENDRA MALI	MALIGUDA	30	M	OBC	
12	SURYA MALI	MALIGUDA	48	F	OBC	
13	SANADEI MALI	MALIGUDA	45	F	OBC	
14	SANIA HANTAL	ATALGUDA	32	M	OBC	
15	MANGULI NAGESWARI	KURKUTI	36	F	OBC	
16	NIRANJAN KHADA	CHIKIMA	48	M	OBC	New
17	SAHDEV PUJARI	CHIKIMA	42	M	ST	New
18	SAMARI MAJHI	ATALGUDA	35	F	OBC	New
19	RAILA GUNTHA	ATALGUDA	32	F	OBC	New
20	NABA KISHORE KHADA	KURKUTI	29	M	OBC	New
21	PADMAN KATIA	KURKUTI	25	M	ST	New
22	GHASI BISOI	KURKUTI	26	M	SC	New
23	DAITARI KHADA	KURKUTI	50	M	OBC	New