

# **Capacity Building of Community Hunger Fighters**

## **1<sup>st</sup> Residential Training in Wardha**

### **Objectives**

1. To introduce the concept of nutritional status and help participants to see how it is influenced by food intake.
2. To help the participants understand the concept of balanced diet, the role of key nutrients, analyse the dietary pattern and identify the strengths and limitations of the present diet.
3. To discuss the food requirement during selected key life cycle stages.
4. To discuss food taboos/customs and how they facilitate/hinder eating a balanced diet.
5. To work out a balanced meal pattern for the family for a day during various seasons and to estimate the total food requirement for the whole family through the year.
6. To analyse present agricultural production and revise /modify the same if possible.
7. To identify all food sources such as forest, entitlements (food and non food based) and opportunities for augmenting food supply and plan for accessing them.

### **Participants**

13 CHFs from the 5 FSN villages, 3 village volunteers and 10 staff members participated in the training programme. The profile of the participants is given in annexure 1.

### **Duration of the Workshop**

The training was a three day residential training held between 7<sup>th</sup> to 9<sup>th</sup> October 2016 at Yatri Nivas campus, Sevagram, Maharashtra.

### **Day 1**

#### **I. Introduction**

The introduction and objectives of the training was explained by Dr.Rama Narayanan, and translated by Ms. Rupal Wagh, Nutritionist. The participants introduced themselves with their names and the villages they came from. They were requested to repeat the names of the participants sitting on their right as well as their own name (ie) the first participant mentioned the name of the person to his/her right and then added his/her name. The next person repeated both the names before adding his/her own. This continued till everyone in the circle had an opportunity to remember and identify the names of the participants in the circle.

In order to help the participants to get to know more about their fellow participants they were partnered with each other in groups of four. Each participant was given a picture of a food group and was requested to identify three others who had pictures of similar food group. Within the group of four, they were requested to pair up and get to know about the other person's food preferences. The groups then had to reassemble and all persons had to introduce their respective partners to the whole group.

## **II. Expectations**

The participants were asked to list their expectations from the training. About 17 expectations were listed which could be grouped into 3 broad themes, given below.

1. Nutrition, diet and how to address the problem of malnutrition
2. How to link agriculture and nutrition
3. How to get good agriculture production? Specially pest management system

## **III. Understanding the linkage between nutritional status and health**

Each participant was asked whether they are doing well at that moment. All those who said "yes" were asked to come to one side and those who said "no" were asked to go to other side. All those who said "yes" were further requested to say whether they were doing well the previous month. All those who said "yes" remained in a group while those who said "no" were asked to go to the other group. This continued with extension of time line till the entire participants became one group. The following questions were used in the subsequent discussion:

1. What were the health problems identified ? What could be the reasons for the same ?
2. How is it that some people remain healthy for longer periods while others fall sick often ?
3. What factors determine one's health condition? How can illness be prevented?
4. Is it possible to find out whether one is in good nutritional condition to prevent ill health?

Initially 4 participants said that they were not fine at that point of time. They complained of problems due to overweight, body pain and cold. It was discussed that most of these conditions had a bearing on the nutritional status of the person. Cold is caused by virus and not by any food. However the resistance put up by the body to the virus varies from one person to another. Nutritional status influences the body's immune system. The difference between ill health and nutritional status is that if the nutritional status is poor the person is prone to fall ill easily. Overweight could be the result of excess of intake of calories over

required level or not being able to burn off excess intake. Body pain could be due to excess strain, lack of adequate rest and under nutrition.

In the next step three participants moved to the other side saying that they had fever and cold. It was discussed that fever is a symptom and not disease per se and the reasons behind the infection has to be assessed before medicine is prescribed. When the time line increased to one year, most of the participants moved into one group while only 6 participants said that they had not fallen sick during the previous year. The reasons were analysed as being satisfactory dietary practices, diet diversity, consumption of sprouts and green vegetables twice or thrice a week, good hygiene and regular lifestyle with routines.

The heights and weights of the participants were measured using Seco weighing machine and stadiometer. Body mass index (BMI) was calculated using the heights and weights of participants and classified according to WHO classification for Asians. Hemoglobin was collected by finger prick method using filter paper and haemoglobin level estimated using colorimeter. The results were discussed and the effect of being undernourished and anaemic was explained. The results of anthropometry and biochemical assessment for individual participants are given in Annex 2. The following table shows the summary of nutritional status of the participants.

**Table 1. Nutritional status of participants**

<b>Nutritional Status</b>	<b>Male</b>	<b>Female</b>	<b>Total</b>
<b>Anthropometry</b>			
<18.5 BMI	5	4	9
Normal	7	3	10
Overweight	2	4	6
Obese	0	2	2
<b>Total</b>	<b>14</b>	<b>13</b>	<b>27</b>
<b>Hb status</b>			
< 12gm%	-	4	4
	3	-	3
>13gm % male and >12 gm %female	11	9	20

The haemoglobin results showed that most of the participants were normal and only 7 were anaemic including 3 male participants. Since the colorimeter estimated only broad values, the number of participants being anaemic could be higher if absolute values had been taken. Mostly pregnant and lactating women were found to be undernourished as they do not get adequate sleep, rest or access to a balanced diet while caring for their child. It was decided that iron and folic acid tablets will be given to participants having haemoglobin level <8 g%. They were also advised to visit the nearby anganwadi centre for collecting the tablets and to

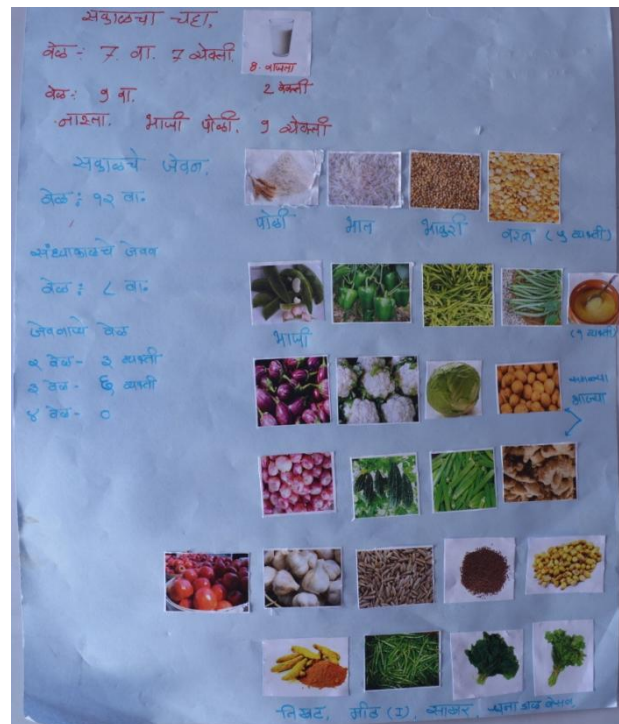
take 1 egg/wk and include dates / green leafy vegetables in their diets. About one third of the participants were undernourished.

#### IV. Understanding existing food and nutrient intake

Participants were divided randomly into three groups.

Group 1 was requested to put down all the food items that are consumed every day, number of meals they eat in a day and the timing of the meals; Group 2 was requested to put down all the foods that they eat once or twice a week; Group 3 was requested to put down all the foods that were eaten occasionally (once or twice in a month).

The groups were given pictures of foods and were requested to use them to indicate what they ate. In case the picture of any food group was not available in the chart they were requested to write the name of the food or draw it. Figure 1, 2 and 3 shows the charts prepared by participants in which they had indicated what they consumed daily, twice or thrice a week and occasionally. Some of the foods consumed seasonally were also shown.



**Fig 1. Daily food consumption pattern**

**Table 2. Daily Dietary pattern of the participants**

Table 2 presents the work of Group 1 which consisted of 4 CHF's and 2 field staff of LANSA.

<b>Timings</b>	<b>Food item</b>	<b>Ingredients</b>
7.00 am	Milk/Tea	Milk, Sugar
Breakfast 9.00 am	Chapati	Wheat or Sorghum
	Vegetables curry	Capsicum, Cow pea, beans, Cauliflower, Potato, Brinjal, Bitter gourd, Ladies fingers , Tomato, Cabbage, Cluster bean, Beans
	Spices	Cumin seed, mustard seed, Green chill, Ginger, Garlic, Turmeric , Coriander leaves and powder, oil
Lunch 12.00 noon	Chapati	Wheat, Jowar
	Rice	Rice
	Dal	Red gram
	Vegetables curry	Capsicum, Cow pea Beans, Cauliflower, Potato, Brinjal, Bitter gourd, Ladies fingers , Tomato, Cabbage, Cluster bean, Beans
	Spices	Cumin seed, mustard seed, Green chill, Ginger, Garlic, Turmeric , Coriander leaves and powder, oil
Dinner 8.00 pm	Chapati	Wheat, Jowar
	Rice	Rice
	Dal	Red gram
	Vegetables curry	Capsicum, Cow pea Beans, Cauliflower, Potato, Brinjal, Bitter gourd, Ladies fingers , Tomato, Cabbage, Cluster bean, Beans
	Spices	Cumin seed, mustard seed, Green chill, Ginger, Garlic, Turmeric , Coriander leaves and powder, oil

- Tea: 5 people Milk: 1 person
- Breakfast: 6 people
- Lunch: 6 people
- Second lunch: 4 people
- Dinner: 6 people

#### **The following emerged during the discussion**

- ✓ Food was cooked only once in a day, mainly, dhal and vegetables and distributed throughout the day and consumed.
- ✓ Dietary diversity is important as cereals provide energy, pulses and animal foods help in body building and vegetables are protective foods as they supply vitamins and minerals.
- ✓ Some drank water before taking food in the morning, which is a good habit since it activates the digestive system.
- ✓ Some of the participants were eating only 2 meals/ day. They were advised to take 3 meals/day. Breakfast is an important meal, since it is eaten after a gap of nearly 10

hours when the body reserves of nutrients come down. Digestibility is maximum during morning hours.

- ✓ 60 g of pulse and 200g of vegetables per day was recommended, for those doing sedentary work.
- ✓ On the day of consuming animal foods, the quantity of pulses consumed can be decreased.
- ✓ It was observed that there was no fruits in the diet and seasonal fruits could be added



Fig 2 Food consumed twice or thrice a week

**Table 3. Foods eaten twice or thrice a week**

Table 3 presents the work of group 2 that consisted of 5 CHF's and 3 LANSA staff

Food Group	Preparation	How many people consumed
<b>Cereals</b>		
Sorghum	<i>Bhakar</i>	3 people
Rice flakes	<i>Chiwada, Kande pohe</i>	
Rice puffed	<i>Chiwada</i>	5 people
<b>Pulses</b>		
Bengal gram	Besan, <i>usal</i>	
Red Gram	Whole gram <i>usal</i> , dal	
Green Gram	Whole gram <i>usal</i> , dal	
Moth Bean	Sprouted <i>usal</i>	
Pea	<i>Usal</i>	
<b>Green leafy vegetables</b>		
Spinach	Curry with dal, <i>Parotha</i>	
Fenugreek	<i>Parotha, sabji</i>	
Coriander leaves	Used in <i>sabji</i>	
Cabbage	<i>Sabji</i>	
Hibiscus	<i>Sabji, Bhakari</i>	
<b>Root and tuber</b>		
Radish	Salad	
Carrot	Salad	
Beetroot	Salad	
Potato	<i>Sabji, curry</i>	
<b>Other vegetables</b>		
Brinjal	<i>Sabji</i>	
Ladies fingers	<i>Sabji</i>	
Cluster bean	<i>Sabji</i>	
Pumpkin	<i>Sabji, bond (Sweet pakoda)</i>	
Jack fruit	<i>Sabji</i>	
Cauliflower	<i>Sabji</i>	
<b>Fruits</b>		
Banana	Raw	
Amla	Pickle, Supari	
Lemon	Raw, Pickle, Squash	
Guava	Raw	
Custard apple	Raw	
Papaya	Raw	
<b>Milk and Milk products</b>		
Curds	Besan, <i>Kadhi</i>	
<b>Meat and fish</b>		
Chicken	Curry	
Meat	Curry	4 people
Fish	Curry	3 people
Egg	Boiled, curry, <i>Bhurji</i> , omelet	
<b>Oil seeds and nuts</b>		
Ground Nuts	Used in <i>sabji</i> and snacks	

Ladies finger, Cluster bean, Cow pea, Beans, Pumpkin is obtained from the field while Jackfruit, Beetroot, Radish, Amla and Orange are purchased from market.

## The following emerged during the discussion

- ✓ Some of the fruits which are consumed twice or thrice a week can be consumed daily. Example: banana, lime, papaya, custard apple, guava if available in the village or can be purchased if within the budget.
- ✓ Oil and fats help in absorption of fat soluble vitamins and so consumption of 30 g of fats and oils daily is essential
- ✓ Dietary diversity is important as each food group had varied nutrients and they had a synergistic relationship with each other.
- ✓ Whole grains are good for health, as polishing removes most of the nutrients. Whole dhal is good when compared with split dhal as more nutrients are present in the skin.
- ✓ Include anola (amla) and orange, as they are rich in vitamin C and help in absorption of iron
- ✓ Jack fruit and banana are rich in minerals
- ✓ The participants expressed that they don't like eating animal foods frequently. It was suggested that understanding the food exchanges was important since one can adjust the food intake accordingly. Animal foods are rich in good quality protein. However if one does not want to consume animal food then it can be replaced with pulses and legumes (especially whole legumes) which also provide protein. Combination of rice and dhal is the best to get the best quality protein.



Fig 3 Foods consumed occasionally and seasonally



**Table 4. Food consumed occasionally and seasonally**

Group 3 presented the foods eaten occasionally or seasonally. This group consisted of 5 CHF's and 1 LANSAs staff.

<b>Food Group</b>	<b>Consumption</b>	<b>Availability</b>
<b>Cereals</b>		
Maize	Once in year	Not available in market
<b>Leafy vegetables</b>		
Hibiscus	Once in week	Wild vegetables
Colo casia	Once or twice in week	Available in villages
<b>Root and tuber</b>		
Carrot	Once in month during season	Available in season
<b>Other Vegetables</b>		
Jackfruit	Twice or thrice in Year	Not available in market
Pumpkin	Once in week	Seasonal and available in villages
<b>Fruits</b>		
Pomegranate	Once or twice in year	Not available in market
Banana	Once in week	It is available in weekly market
Guava	Seasonal consumption	Available in season
Amla	Twice or thrice in season	Available in season
Grapes	Once or twice in season	Available in season in market
Apple	Once or twice in year	Not consumed due to high cost
Orange	Seasonal consumption	Available in season
Sapota		Not consumed due to high cost
Custard apple	Seasonal consumption	Available in villages
<b>Milk and Milk products</b>		
Paneer	Once in year	Not consumed due to high cost
<b>Meat and fish</b>		
Meat	Once in year	Not consumed due to high cost
Fish	Once in week during rainy season	Available during rainy season
Chicken	Once in week	Available in home
<b>Oil seeds and nuts</b>		
Cashew nut	Once or twice in year	Not consumed due to high cost

### **The following emerged during the discussion**

- ✓ Some of the foods shown as being consumed twice or thrice a week, by the previous group were shown to be consumed occasionally by this group. This was because the consumption pattern varied between households.
- ✓ Ragi is a rich source of calcium and protein and this was not found in the diet. The group members were requested to reflect whether it could be brought into the diet.
- ✓ Seasonal fruits and vegetables could be consumed more than once a week.

It appeared that energy adequacy was met while that of protein and mineral was not.

### **V. Food Groups, Nutrients and cooking practices**

Booklet on dietary diversity (Annex 3) was distributed to the participants and the following points were discussed;

- ✓ 1 g of cereals provides 4 kcal and 1 g of fat provides 9 kcal.
- ✓ Calories: They provide energy and are required for working in fields and to do household chores. Cereals, root vegetables and oils provides energy
- ✓ Protein: protein rich foods help in body building, example: pulses, nuts and animal foods Animal foods are good quality protein and is important for muscle growth particularly in children
- ✓ During *Sankarathi* festival, sesame with jaggery is consumed during fasting period. It is rich in calories and proteins.

### **Day 2**

Sources and functions of vitamins and minerals were explained with the help of power point Differences in the nutritive value of refined and whole grains, health effects of commercial foods, changes in nutritive value while cooking were discussed.

- ✓ Soya bean, grown locally is not consumed. Since it is rich in protein, it could be included in the diet. The participants responded that they did not like the taste of it. This can be partly addressed by changing cooking practices (ie) soya flour can partially replace wheat flour in chapatis.
- ✓ Foods collected from forest can be added to diet and conservation of forest should also be taken care of.
- ✓ It is not necessary to have a fruit in every meal; we can have one or two fruit any time of day.

When asked if it was possible to have a balanced diet participants replied

- ✓ No, it is not always possible since it depends on availability of food. Roti, rice, dal and one vegetable is always possible.

However improving agricultural practices and linking production of nutritious crops will help in greater availability of foods varieties.

## **VI. Entitlement**

The special guest and resource person in the training was Dr R.P. Gahlot, district immunization officer, who gave a comprehensive presentation of the health related schemes.

### **Dr. R.P. Gahlot, District Immunization Officer, Zila Parishad, Wardha**

The following schemes were explained by the district immunization officer;

1. Janani Suraksha Yojana: Janani Suraksha Yojana (JSY) is a safe motherhood intervention under the National Rural Health Mission (NRHM) implemented with the objective of reducing maternal and neo-natal mortality by promoting institutional delivery among the poor pregnant women. For tracking every pregnancy, all mothers are registered under this Yojana, provided with a JSY card along with a MCH card. For pregnant women in urban areas: Rs. 600/- and in rural Rs. 700/- is given.
2. Janani Shisu Suraksha Abhiyan: Free medical service for pregnant women and upto 42 days after delivery. Toll free telephone number 102 can be used for ambulance service. Free meal is provided for 3 days to mothers, if it is a normal delivery and 7 days for C section delivery.
3. Family planning programme: Besides Samudrapur, a family planning centre opened in 1957-58, the rural family planning centres were established at Seloo, Talegaon and Karanja in the following year and at Arvi in 1958. Each family planning welfare centre is manned by one Extension Educator and one Family Planning Field Worker or a female auxiliary nurse midwife. Each family planning centre has three sub-centres in each of which one female welfare worker, auxiliary nurse, midwife and one part-time attendant are posted.
4. ASHA (Accredited Social Health Activist) Yojana: For every 1000 people, one ASHA worker will be appointed. Responsibility of ASHA worker is to promote universal immunization, referral and escort services for Reproductive & Child Health

(RCH) and other healthcare programmes and counselling pregnant and lactating mothers.

5. Village health, sanitation and nutrition committee (VHSN): In Wardha, about 868 committees are established. Severely malnourished children are taken care of under this committee.
6. IPHS (Indian Public Health Standard) Hospitals: Under this programme, PHC, CHC and sub district and district hospitals were established. There are 16 PHCs in Wardha, located in Sindhi (Sindhi block), Nachungaon (Deoli block), Kharangana (Aarvi block) and Sahur (Aashti block).
7. Mobile medical Unit : for vaccination, health care of pregnant women and child health.
8. Adolescent Reproduction Sexual Health (ARSH): It was launched during 2005-06 through establishment of adolescent friendly health clinics. In Wardha district ARSH clinics have been started in one District Hospital and 2 sub district hospital in Wardha district.
9. WIFS (Weekly Iron Folic acid tablets supplementation): about 55% of adolescent girls are anaemic. On Mondays, 10 to 19 year old school going and non school going adolescents are provided with one iron tablet for 52 weeks and de-worming tablets for 2 times in a year.
10. AYUSH (Ayurveda, Yoga and Naturopathy, Unani, Siddha and Homeopathy) a comprehensive health care programme using all the different systems of traditional medicine was being implemented through the PHCs

Following questions were raised by the participants and were discussed in detail by the DMO;

- ✓ How to control sickle cell anemia?
- ✓ How to get information on the schemes?
- ✓ Fund for VHSN committee
- ✓ Mobile medical unit schedule
- ✓ Ambulance service toll free numbers : 102, 108 and 104
- ✓ How to treat leprosy affected person?

## **VII. Life cycle period, food requirements and social customs**

Participants were randomly divided into two groups of 8 participants and each group was given a role play to enact.

Group 1 was given the following situation: A family consists of a mother, father, a school going girl, an adult son and his pregnant wife. They are an agricultural family and are small farmers who make both ends meet through cultivating their own land, getting supply from PDS and through wage labour. One day suddenly when they are about to eat dinner guests arrive. Show how they manage to feed the guests. Who compromises on the food? or is there enough food to go around ?

The play started with the men in the family getting ready for dinner. At that time a guest arrives and he was also invited for dinner. The men eat first and the women sit down to eat later. By the time their turn comes, there was a shortage of side dishes. The women eat the left over by adjusting among themselves.

**The play was then discussed and the following were the highlights:**

1. The question was asked by the resource person, whether what was depicted in the play actually occurred in the households. The participants replied that it indeed happened. Usually men ate first and women ate last and if there was a shortage of food then it was adjusted by the women.
2. The participants in the role play said that usually there was always extra food cooked in households such that they could accommodate a guest. However it was pointed out by another participant that while roti or rice were always available, vegetables and dal could end up in shortage. While the cereal requirement would be met, the micronutrient requirement such as vitamins and mineral were not likely to be met.
3. The entire management of food distribution had to be done by the women. It was suggested that in such situations the men of the household could be more sensitive as to how much food was available and the measures that could be taken to overcome shortage so that everyone could eat. It would be best for the man and woman head of the household to jointly take a decision on how best to manage the extra food need (eg) they could borrow cooked vegetables from neighbours or buy if possible.
4. The participants did not clearly show the different stages of life cycle of the three women in the play – pregnant women, school going and elderly woman. The play did not clearly show who among the three ate less.

**Play 2.** A family consists of a mother, father, adolescent son and daughter. It is Navarathri season during which fasting is practiced. One day suddenly guests arrive and one of the

guests says that he observes fasting. Show the household food habits during fasting season and how they manage to feed the guests.

The play showed that the head of the household, the man, coming inside the house and asking his wife for food. A young child goes to the mother and asks for plantain and was given. Another son goes and asks for milk and was also given. A guest arrives and the *upvaas* food which is kept for the women was given to the guest.

**In the discussion the following issues were raised:**

1. In the play it was depicted that food meant for the mother was shared by the guest. It was not clearly shown as to who were all observing fast in the house and what type of food was being eaten during fast.
2. What was possible to understand was that the fast was not a total or complete fast and it did involve some eating.
3. Fasts were of three types:
  1. Total fast where neither food nor water was consumed.
  2. Fasts where only liquids were consumed
  3. Fasts where solids were allowed but with restrictions; (eg) uncooked food, etc.
    - a) First type of fasting - preparation to undergo such a type of fast was necessary along with some life style changes, (eg) initially one could begin with one day's fast and then gradually increase the number of days. Heavy manual labour could be cut down and some rest during the day time would help. It is better to excuse pregnant and lactating mothers off the fast. When the fast is broken it is advisable to take a glass of water first, followed by fruit juice and then proceed with usual diet.
    - i) Participants observed that in the second type of fast, people only drank tea throughout the day. Since too much of tea was also not good for health other liquids such as lemon juice, *lassi* or butter milk or *ambadi sherbeth* (Roselle) could be consumed.
    - ii) In the third type of fast where limited solids were permitted, it is possible to maintain the daily intake of RDA, for example fruits, raw salads, nuts and cooked sago could provide the needed vitamins, minerals and energy.

**Exhibition**

The participants visited an exhibition conducted at Sevagram Ashram grounds where school children participated and presented various activities / exhibits related to Gandhian principles, and simple science experiments. One group prepared and sold healthy food and drinks.

## Day 3

### VIII. Improving existing consumption pattern

Participants were randomly divided into three groups and each group was asked to plan a balanced diet for one particular season of the year (ie) summer, rainy and winter. The following table explains the modified food consumption pattern.

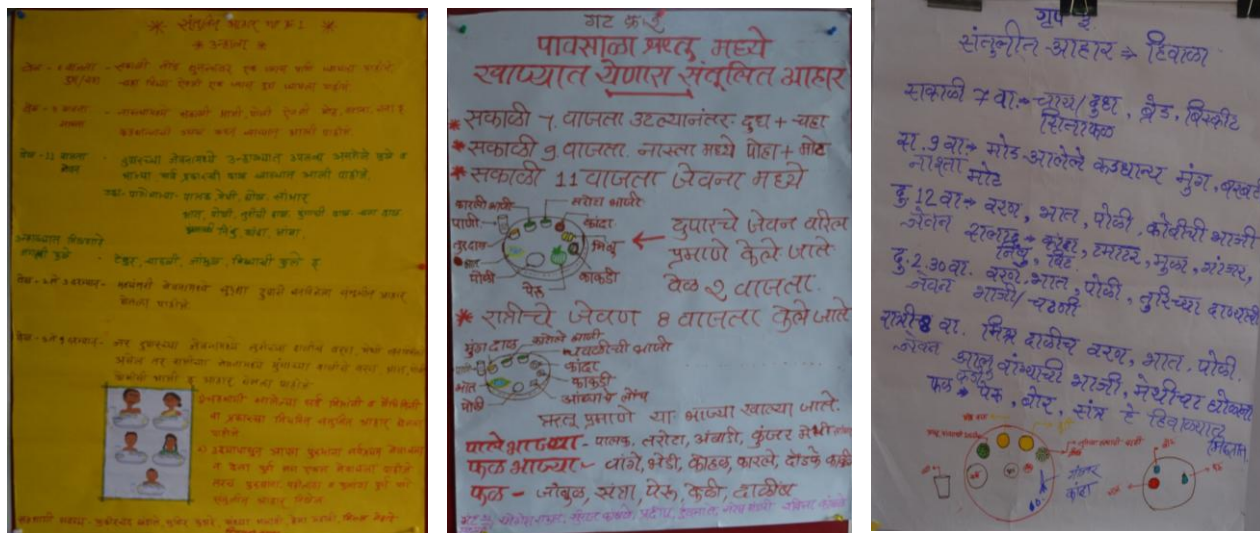


Fig 4 Balanced diet planned for summer, rainy and winter seasons

Table 5. Modified Consumption Pattern based on seasons

Meal Pattern	Meal Time	Summer	Winter	Rainy
Morning	7.00 am	1 glass of water	Milk/tea with biscuit, bread, custard apple	Milk/ Tea
Breakfast	8.00am	Sprouts ( <i>usal</i> )	Sprouted pulses	<i>Poha</i> , Sprouted
Lunch	11.00am	Chapati, Rice, any one Dal red gram/green gram/Bengal gram, leafy vegetables i.e. Spinach, fenugreek, <i>gol</i> , coriander and lemon, onion, mango.	Chapati, Rice, Red gram dal, cauliflower <i>sabji</i> , onion, cucumber, carrot, radish tomato, beetroot, lemon	Chapati, Rice, Dal red gram, Bitter gourd <i>sabji</i> , Cassia tora <i>sabji</i> , onion, cucumber, lemon
Lunch	2.00pm	Same	Same as above plus tender red gram chutney	Same
Dinner	8.30pm	Chapati, Rice, Green gram dal, cauliflower <i>sabji</i> , onion, mango	Chapati, Rice, mix dal, potato <i>sabji</i> , butter milk	Chapati, Rice, Green gram dal, cow pea, Spine gourd, cucumber, onion
		Wild fruits - Jamun, <i>Tembhur</i> , <i>charoli</i> , marking nuts ( <i>Semecarpus anacardium</i> ) flower	fruits after dinner - orange, guava, ber	Fruits - jamun, orange, guava

## **Resolutions by the participants**

- All the group members decided that they will try to eat a balanced diet every day.
- They decided all family members including male, female and child will take meal together.
- They decided sprouts, wild fruits and leafy vegetables would be included in their daily diet.
- Wild vegetables i. e. *Cassia tora*, Hibiscus, *Kunjar*, Amaranthus, Spine gourd would be included as per availability.

## **IX. Infant and Young Child Feeding practices**

Participants were divided into four groups. Each group was given a pictorial material (Annex 4) corresponding to a particular age group such as first six months, 7<sup>th</sup> and 8<sup>th</sup> month, 9 to 11 months, 12 to 24 months and 25 to 36 months along with the feeding requirements. They were asked to study and discuss the pictures. A general discussion was held about women's health and Rights before moving to Young Child nutrition and feeding practices.

1. Girls' age for marriage is 18 years as her reproductive system will be fully developed at this age and she is strong enough to carry a baby.
2. Pre-conception and Pre-natal Diagnostic Techniques Act (1994) – knowing gender of baby in womb is illegal as most of the rural population consider girl child as burden and abort pregnancy.
3. Birth weight of infants – 2.5 kg is the ideal body weight. Low birth weight babies are more prone to diseases.
4. Effect of domestic violence to pregnant women – the child will be affected
5. Importance of first 1000 days – Nutrition during pregnancy and in the first year of a child's life provides the essential building blocks for brain development, healthy growth and a strong immune system.

### **0 to 6 months**

1. Breast feeding should be started within first one hour of birth and exclusive breast feeding should be followed for 6 months. Participants said that in village, ASHA worker advises the mother to start breast feeding within 1 hour of child's birth.
2. In villages, special foods like dry fruits and nuts (in the form of laddus) were given to the mother to stimulate the production of breast milk. Since they are high in calories, they provide energy and help in milk production.
3. Child has to be breast fed on demand.



4. Mother should drink water before feeding the baby. This help to stimulate production of milk
5. There is a taboo in villages that giving excess food to lactating mothers will increase her stomach. It was explained that the stomach size does not increase because of food. After delivery the stomach sags and looses elasticity. It can be reversed to a large extent through breastfeeding, using abdominal belt and doing exercise.

### **7<sup>th</sup> month and 8<sup>th</sup> month**

1. Complementary feeding starts during the seventh month and mashed food is given along with breastmilk.
2. The child can be initiated to eat semi solid food like cooked rice and dal water made into paste.
3. The participants said that the complementary feeding mix provided at the anganwadi centre was mostly given to cow as the children did not find it palatable.
4. One of participants' mother in law who works as anganwadi worker prepared a mix using wheat, green gram and rice. It was roasted, ground and made into balls and given to the child.
5. Gradually the variety of foods can be increased and consistency can also be increased as the child grows.
6. Cow's milk can be provided to the child along with breast milk

### **9 to 11 months**

1. Foods like rice and green gram kichidi, semolina porridge can be given to the child.
2. Family foods should be introduced.
3. To add taste, little oil can be added to foods, it also gives energy. Foods can be prepared in various colour to attract the children to eat.
4. Frequency of feeding children should be increased as they have less stomach capacity and more requirements for energy and protein for growth.

### **12 to 24 months**

1. Children would have some teeth by now and so caregivers should help children to clean their teeth and start brushing when all teeth are in place. In order to prevent children from eating tooth paste, we can add salt to water that is used for rinsing mouth.
2. All the tastes, sour, bitter, sweet, salt should be introduced

## **25 to 36 months**

1. Whatever prepared for the family should be given to the children. They should be made to sit along the family and allowed to eat on their own. Initially they will mess up, but they also learn to eat without spilling. If the family is excluding any food for example if the family avoids consumption of fruits, the child will also avoid taking fruits. Good habits such as not wasting food, washing hands before eating and enjoying the conversation with everyone are some of the advantages of eating with the family.

## **X. Entitlement card**

Entitlement card (Annex 5) was prepared with some key entitlements under the following themes:

- ✓ Irrigation
- ✓ Agricultural equipment and machineries
- ✓ Horticulture
- ✓ Soil and water conservation
- ✓ Organic farming
- ✓ Agricultural Insurance and credit
- ✓ Livestock
- ✓ Seeds
- ✓ Forest and revenue
- ✓ PDS
- ✓ Health
- ✓ Women and child welfare
- ✓ Education
- ✓ Tribal development

The entitlement card was distributed to the participants and explained by Mr. Mahesh Maske, coordinator.

## **XI. Concluding session**

At the end of the residential training participants assessed how far their original expectations had been fulfilled. Out of the three expectations listed out during the start of training, only one expectation, i.e understanding key nutritional concepts was covered. Expectation on linking agriculture to nutrition and increasing agriculture production was not covered due to shortage of time. Capacity building on linking nutrition and agriculture will be held according to the convenience of the participants.

**Profile of participants of I residential training****Annexure 1**

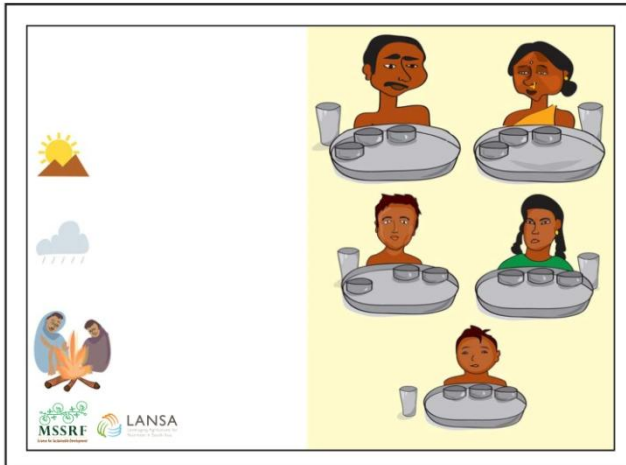
<b>Village</b>	<b>Name</b>	<b>Gender</b>	<b>Age</b>
<b>Saheli</b>			
1	Ms. Suvarna Chamlate	F	24
2	Ms. Shital Nehare	F	23
3	Mr. Yogesh Raut	M	33
<b>Vitpur</b>			
4	Mr. Pravin Somkuwar	M	28
<b>Susund</b>			
5	Ms. Rupali Varthi	F	18
6	Mrs. Sandhya Bhalavi	F	27
7	Mr. Mangesh Nikule	M	25
<b>Heti</b>			
8	Ms. Ravina Kamble	F	21
9	Mr. Suraj Kamble	M	25
<b>Borgaon Gondi</b>			
10	Ms. Dipali Mangam	F	19
11	Mrs. Hema Madavi	F	28
12	Mr. Naresh Mandari	M	21
13	Mr. Pradip Ivanathe	M	20

**Annexure 2****BMI and Blood haemoglobin level of the participants**

<b>S.No</b>	<b>Name</b>	<b>Heights (Cm)</b>	<b>Weights (Kg)</b>	<b>BMI</b>	<b>HB g%</b>
1	YOGESH RAUT	177	61	19.47	11
2	NARESH MANDARI	159	40	15.82	14
3	MANGESH NIKUDE	161	49	18.90	12
4	PRAVIN SOMKUWAR	168	46	16.30	13
5	PRADIP IVNATE	160	48	18.75	13
6	SURAJ KAMBALE	168	51	18.07	14
7	FAKIRA KHANDATE	162	48	18.29	12
8	GAUTAM YESANKAR	165	58	21.30	13
9	SUDHIR KUMARE	159	48	18.99	13
10	VIKASH MESHRAM	157	55	22.31	13
11	SANDHYA BHALAVI	150	42	18.67	12
12	RAVINA KAMBALE	152	38	16.45	12
13	HEMA MADAVI	149	37	16.67	12
14	RUPALI WARTHI	154	56	23.61	11
15	DIPALI MANGAM	149	40	18.02	8
16	SHITAL NEHARE	157	39	15.82	12
17	SUWARNA CHAMLATE	154	45	18.97	11
18	AARTI DESHMUKH	160	49	19.14	12
19	ANJALI BARAEE	147	51	23.60	12
20	RAHUL YEDKAR	166	43	15.60	13
21	PRANALI HALGE	157	62	25.15	12
22	MAHESH SADATPURE	168	67	23.74	14
23	MANOJ SAYRE	172	60	20.28	14
24	NITHYA DJ	158	62	24.84	13
25	RAMA MADAM	159	76	30.06	11
26	RUPAL WAGH	145	60	28.54	12
27	MAHESH MASKE	165	65	23.88	13

Booklet on Dietary Diversity

Dietary Diversity



Adapted from Community Hunger Fighters - A People-Centered Programme Focussing Undernutrition, Residential Training Programme Manual developed by M.S.Swaminathan Research Foundation and Global Alliance for Improved Nutrition (gain)

Dietary diversity – calories



Adapted from Community Hunger Fighters - A People-Centered Programme Focussing Undernutrition, Residential Training Programme Manual developed by M.S.Swaminathan Research Foundation and Global Alliance for Improved Nutrition (gain)

Dietary diversity – proteins

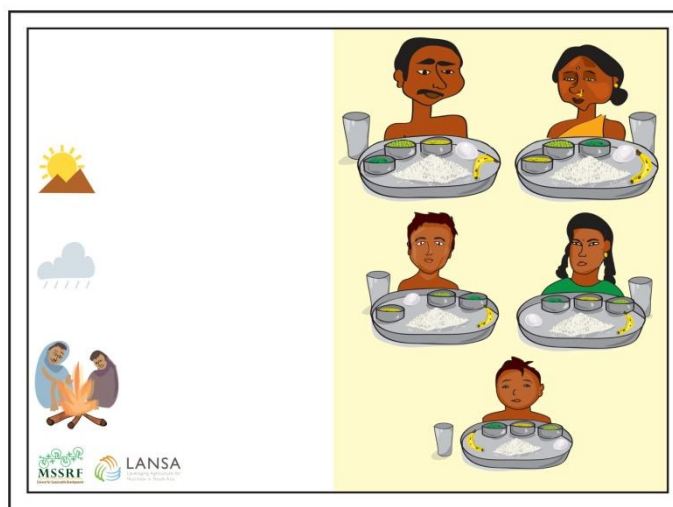


Adapted from Community Hunger Fighters - A People-Centered Programme Focussing Undernutrition, Residential Training Programme Manual developed by M.S.Swaminathan Research Foundation and Global Alliance for Improved Nutrition (gain)

Dietary diversity – Vitamins and Minerals



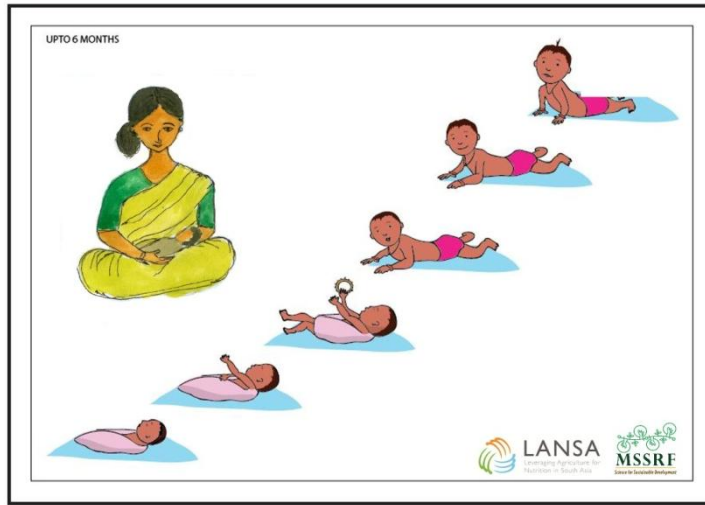
Adapted from Community Hunger Fighters - A People-Centered Programme Focussing Undernutrition, Residential Training Programme Manual developed by M.S.Swaminathan Research Foundation and Global Alliance for Improved Nutrition (gain)



Adapted from Community Hunger Fighters - A People-Centered Programme Focussing Undernutrition, Residential Training Programme Manual developed by M.S.Swaminathan Research Foundation and Global Alliance for Improved Nutrition (gain)

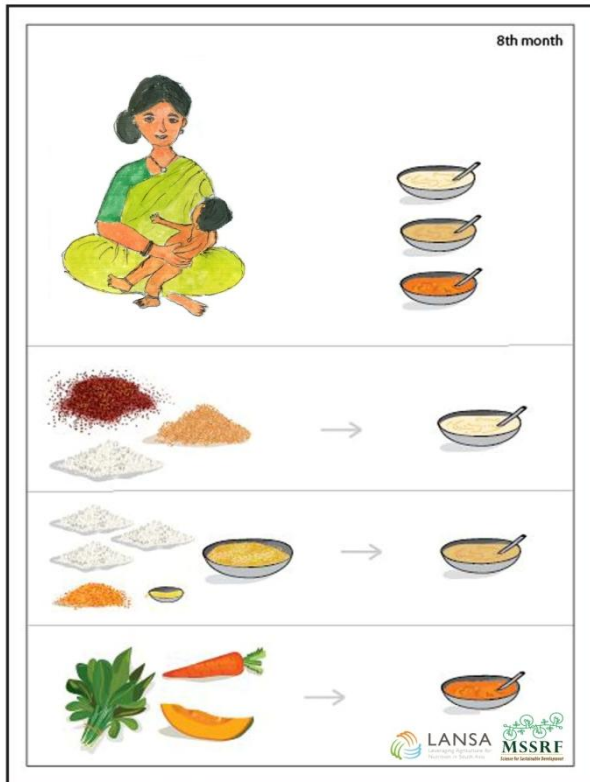
Booklet on IYCF practices

IYCF – upto 6 months



Adapted from Community Hunger Fighters - A People-Centered Programme Focussing Undernutrition, Residential Training Programme Manual developed by M.S.Swaminathan Research Foundation and Global Alliance for Improved Nutrition (gain)

IYCF – 8<sup>th</sup> month



Adapted from Community Hunger Fighters - A People-Centered Programme Focussing Undernutrition, Residential Training Programme Manual developed by M.S.Swaminathan Research Foundation and Global Alliance for Improved Nutrition (gain)

IYCF – 7<sup>th</sup> month

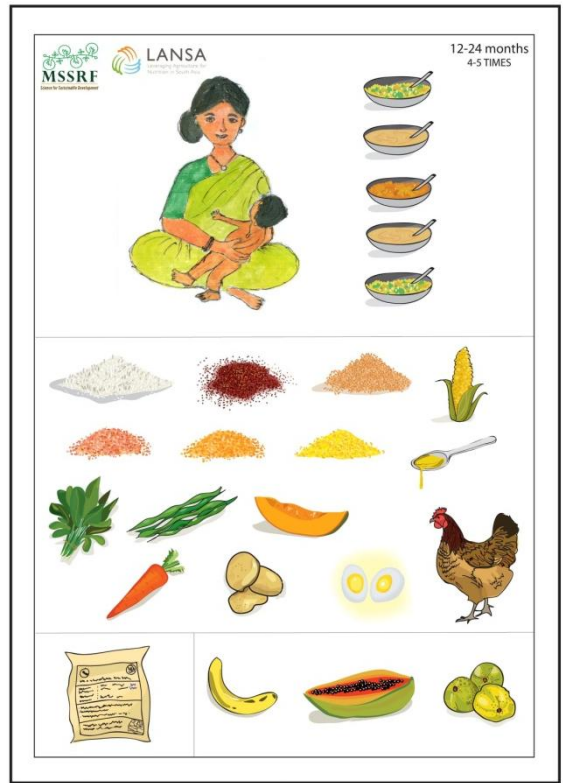


Adapted from Community Hunger Fighters - A People-Centered Programme Focussing Undernutrition, Residential Training Programme Manual developed by M.S.Swaminathan Research Foundation and Global Alliance for Improved Nutrition (gain)

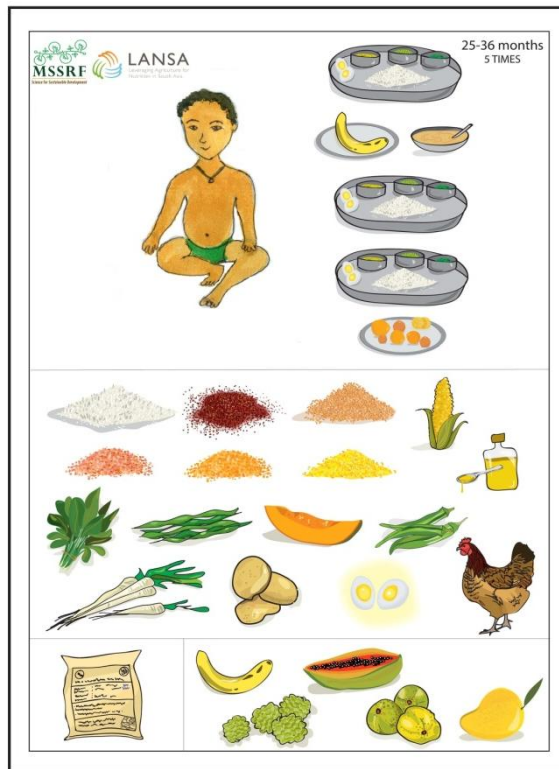
**IYCF - 9-11 months**



**IYCF - 12-24 months**



**IYCF - 25-36 months**



Entitlement card

	अन्नपूर्णा योजना तहसूल: ५ किलो गहू: ५ किलो लाक्षाची १५ नवे न्यांनरीत अलगना.
संपर्क: विहीडण अधिकारी, पुरवठा विभाग, तशील कार्यालय	
<b>आरोग्य विभाग (Health Department)</b>	
	नानी सुरक्षा योजना लाक्षाची दरिद्र रवे/आलील/एस.सी. एस.टी. वरी प्रतुले ५००/- रु. शासकीय रुग्णालयातील प्रतुलीस ७००/- रु. शहरी भागातील महिलेकरिता १००/- रु.
	कुपोषित मुलांसाठी योजना लाक्षाची सुेषित बालक ० ते १ नवे नयोगातील. शासकीय रुग्णालयात नि.शुल्क उपचार
	नानी शिशु सुरक्षा योजना लाक्षाची गर्भवती व ३० दिवसापर्यंतचे बालक. या योजनेतील बाळंतपणात व बाळंतपणानंतर ४२ दिवसापर्यंत नि.शुल्क उपचार व नन्यापासून बाळाला ३० दिवसापर्यंत नि.शुल्क उपचार व नदन व्यवस्था
	नन्यात बाळाने आणि बालकाने एकत्रित आरोग्य व्यवस्थापन योजना लाक्षाची ० ते १ नवे नयोगात आरोग्य शिबिरात नि.शुल्क रोगनिदान व औषधीउपचार. आनारी व्यक्ती प्राथमिक आरोग्य केंद्रात नानून तपासाची कळन घेवू शकते.
	शालेय आरोग्य तपासाची योजना नवी १ री ते १० रीत शिक्षकांचा मुलांची नि.शुल्क शालेय आरोग्य तपासाची आनार नवे पध्दिया, नंत, रात आंधळेपण, कानातुव वेगारा खान, छान, छजन, कमनीर ननर आणि दाहाने आनार जनर नि.शुल्क औषधीउपचार तपासाची
	सिक्ल सेल रुग्णांसाठी योजना सिक्ल सेल रुग्णांसाठी नि.शुल्क रनतपुरवठा रुग्णाला गरजरी दनाबाब्यात दाखल केल्यात

संपर्क: प्राथमिक आरोग्य केंद्र, ग्रामिन रुग्णालय, निल्का तालुका रुग्णालय, आणवडी तालुका

**महिला व बाल कल्याण विभाग (Women & Child Welfare Department)**

**पुष्क आहार योजना**  
लाक्षाची ० ते १ नवे नयोगातील मुले व गर्भवती/स्तनदा माता  
" पुष्क आहार " तशीकरण " आरोग्य तपासाची " संदर्भ सेना " पूनं शालेय शिवण " शोधन व आरोग्य निययक मार्गदर्शन

**गर्भवती महिला, स्तनदा माता आणि किशोरवयीन मुलां मुलींसाठी शोधन आहार योजना**  
अणनारी मनुज मिळणाऱ्या शोधन आहाराव्यतिरिक्त शुद्ध मूल द्रव्याने साधरप शोधन नवे दुग्, सौम्यमिळक, चिक्की, लाडू, अडे, केंडी, वुड-नीगामने इ.

**किशोरी रुग्णी योजना**  
नयोगात ११ ते १८ नवे मुली मुलींना संतुलित आहार आरोग्य व आर्थिक स्वातंत्र्य प्रशोधन आचरण, शैलिक अंशिरद गीळय

संपर्क: आणवडी तालुका, पुरवठा विभाग, प्रकृत अंशिकारी, बाल कल्याण प्रकृत अंशिकारी, निल्का परिषद, महिला व बालकल्याण निरीक्षण

**शिक्षण विभाग (Education Department)**



**मध्याह्नक योजना**  
प्राथमिक शाळेच्या विद्यार्थ्यांना व माध्यमिक शाळेच्या विद्यार्थ्यांना शोधन आहार मिळते

संपर्क: मुख्याध्यापक, मध्याह्नक योजना निरीक्षण अंशिकारी, विभागीय अंशिकारी, निल्का शिवागारिकारी

**आदिवासी विकास विभाग (Tribal Development Department)**

भारतलून डॉ. प.पी.ने. अचुल क्लम अमृत आहार योजना  
अनुसुचित शेवतील गरीबर शिव्या व स्तनदा मातांना एक महिन्या एक डेढ नीरस आहार देण्याची योजना

संपर्क: आणवडी तालुका, आगा तालुका

**शासकीय योजना माहिती कार्ड**  
(कृषी, अन्न, शोधन व आरोग्य)  
**कौटुंबिक माहिती**

कुटुंब प्रमुखाचे नाव: \_\_\_\_\_

पु.: \_\_\_\_\_ प्रा.प.: \_\_\_\_\_ जिल्हा: \_\_\_\_\_

अ. क्र.	कुटुंब सदस्याचे नाव	लिंग	वय	कुटुंब प्रमुखाची नाते

कुटुंब प्रमुखाची सही \_\_\_\_\_ माहिती गोळा करणाऱ्याची सही \_\_\_\_\_

**एम. एस. स्वामिनाथन रिसर्च फाउंडेशन**  
विभागीय कार्यालय, नर्बा (महाराष्ट्र)

**शिवन विभाग (Irrigation Department)**

**शिवन विहिर (अनु, नाती/नमाती)**  
• १०० टक्के अनुदान विहिरांच्या तय्युं बांधकामाकरिता.  
• कमाल मर्यादा १०००००/- रु.

**शिवन पंप (अनु, नाती/नमाती)**  
• १०० टक्के अनुदान एकुण किमतीचेर  
• कमाल मर्यादा २०००००/- रु.

**डिक्क शिवन**  
• ७५ टक्के अनुदान कमाल मर्यादा ५००००/- रु. प्रति हेक्टर  
• नातील न्यात २ हेक्टर वेगाराठी

**तुषार शिवन**  
• ७५ टक्के अनुदान कमाल मर्यादा २२००००/- रु. प्रति हेक्टर  
• नातील न्यात २ हेक्टर वेगाराठी

**कृषी यंत्र व जखनेरी (Agril. Equipement & Machineries)**

**ट्रेक्टर**  
• २५ टक्के अनुदान कमाल मर्यादा १०००००/- रु. (अनु, नाती/नमाती)  
• २५ टक्के अनुदान कमाल मर्यादा ७५००००/- रु. (सर्वसाधारण)

**एम.सी. नांबर, कल्टीवेटर, नखर (कैलपलित)**  
• ५० टक्के अनुदान कमाल मर्यादा १०००००/- रु. (अनु, नाती/नमाती)  
• ४० टक्के अनुदान कमाल मर्यादा ८००००/- रु. (सर्वसाधारण)

**फळवण विभाग (Horticulture Department)**

**आंबा लागवड (सगन लागवड) (२.५ X २.५ मी.) डिक्क शिवन व्यतिरिक्त**  
• ४० टक्के अनुदान कमाल मर्यादा ४०००००/- रु. प्रति हेक्टर

**शेव लागवड (सगन लागवड) (३ X ३ मी.) डिक्क शिवन व्यतिरिक्त**  
• ४० टक्के अनुदान कमाल मर्यादा २२३३२२/- रु. प्रति हेक्टर

**पर्वद लागवड (१.८ X १.८ मी.) डिक्क शिवनसह**  
• ४० टक्के अनुदान कमाल मर्यादा ४८०२२२/- रु. प्रति हेक्टर

**मृद व नल संभारण (Soil & Water Conservation)**

**शैयस्तीक शेत तळे**  
• लांबी २० X रुंदी २० X उंची ३ मी. कमाल मर्यादा २१०९४४/- रु. प्रति शेत तळे

**नमिन आरोग्य पक्क्या**  
शेतकऱ्यांना नमिनीतील मातीचे परिक्षण करून खतमात्रांच्या शिफारसीसह मृद आरोग्य पक्क्या मितरण

**सैयिय शेतो (Organic Farming)**

**गांडूळ खत युनित**  
• लांबी ७ X रुंदी ३ X उंची १ मी. कमाल मर्यादा ५०००/- प्रति युनित

**कृषी विमा व कृषी कर्ज (Agriculture Insurance and Credit)**

राष्ट्रीय कृषी विमा योजना मितरीतील १ निल्कायासाठी (बुलडाण, अमरावती, अकोला, नाशिम, यतमाळ व नर्बा) कषाशी विकासाठी अन्न व अल्पयन शुधाराकराठी विक विमा हत्ता रकमेत ७५ टक्के अनुदान देण्यात येते. इतर अधियुक्त विकासाठी अन्न व अल्पयन शुधाराकराठी विक विमा हत्ता रकमेत ५० टक्के अनुदान देण्यात येते.

**कृषिदान क्रेडिट कार्ड**  
केज पुरस्कृत कृषी योजिकीकरण योजना अंतर्गत शेतो करीता कोणत्याही राष्ट्रीयकृत बँकेतून कर्जाची उपलब्धता शेतो.

**पशु संवर्धन (Live Stock Department)**

**एकालिक कुपुडुड विकासा कार्यक्रम**  
सर्वसाधारण लाक्षायांला ५० टक्के अनुदानपर ८ ते १० आठवड्यांच्या तलागाच्या २५ मासा आणि ३ नर बाटप (१०००/- रु.)

**राज्यातील गावी म्श्रीच्या उत्पादकता नाकविण्यासाठी अनुनांशिक शुधाराण कार्यक्रम**  
उच्च उत्पादन क्षमतेच्या गाई म्श्रीची निनद करून त्याचेद्वारे पुढील पिढीतील भारी निर्माण करणे त्याद्वारे उत्पादकता वाढवून नननरांची ओळख पटविणे. उत्पादन शिवयक बाबींची नोद घेणे व शिदारा बाचाची कार्ययक रावविणे

**शिव्याणे (Seeds)**

प्रमाणित शिव्याणे मितरण कडक्यांच्या शुधारित नागास किमतीच्या ५० टक्के शिवा रु. २१/- प्रति किलो शिबी ने कमी अशील ते

**ननविभाग व महसुल विभाग (Forest & Revenue Department)**

विक नुकराणापोठी शाययाने आर्थिक सहाय्य राज्यातील रानदुक्कर, हरिण, रानगना, रोडी, माकड तसेच नननरती या नय्यागारां पासून शेतो विकासा व फळवणांना नुकराण झाल्यास १०००००/- रु. पर्यंत आर्थिक सहाय्य देण्यात येते.

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