# Guideline on Nutrition Resource Centre



ODISHA PVTG EMPOWERMENT AND LIVELIHOODS IMPROVEMENT PROGRAMME

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# Abbreviations and Acronyms

AIIMS	All India Institute of Medical Sciences
ASHA	Accredited Social Health Activist
AWPB	Annual Work Plan & Budget
СВ	Capacity Building
CSP	Community Service Provider
DHFW	Department of Health & Family Welfare, GoO
DWCD	Department of Women and Child, GoO
ICDS	Integrated Child Development Services scheme
ICT	Information and Communication Technology
KVK	Krushi Vigyan Kendra, (Agriculture Knowledge Centre)
MPA	Micro Project Agency
NRC	Nutrition Resource Centre
FNGO	Facilitating Non-governmental organization
OPELIP	Odisha PVTG Empowerment and Livelihoods
	Improvement Programme
PMU	Project Management Unit
PVTG	Particularly Vulnerable Tribal Groups
SC&STDD	Scheduled Caste & Scheduled Tribes Development
	Department of GoO
SHG	Self-Help Group
VDC	Village Development Committee
VDA	Village Development Association
Anganwadi	ICDS center

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## GUIDELINE ON NUTRITION RESOURCE CENTRE (NRC)

## Background:

Improving the nutritional status of all beneficiaries is a fundamental goal of OPELIP. To achieve this goal, the program promotes interventions that support livelihoods and shape community food systems to improve nutrition through agriculture and livestock as well as access to wild and uncultivated foods.

Good nutrition is an outcome as well as an essential input into social and economic development. Good nutrition increases learning and cognitive abilities as well as labor productivity, increasing household income as well as overall economic and agricultural growth. Households must have good knowledge about food, care, and health as well as access to the right amounts and kinds of food and to good water, good sanitation, and good health care.

### Introduction:

To promote nutritional related awareness and monitoring of nutritional activities, a Nutrition Resource Center is an initiative taken up by the programme. This is a kind of nutritional point envisaged to be developed

through SHG and CSP at villages level. 17 such centers will be piloted in each MPA and it will act as a Resource Center as well as the sale point of different nutritional food items. It will not only facilitate or promote the nutritional aspect but it will also monitor different nutritional activities promoted in different VDCs.

## Process of Implementation:

- 1. Available building with some repair and beautification will be utilized for Nutri Resource Center.
  - a. While selecting the NRC, there should be sufficient land adjacent so as to make the above demonstrations.
  - b. Availability of water source should also be explored for the demonstration unit.
- A lead CSP will be in overall charge. The Community Institution & Nutrition Officer of FNGO and Social Mobiliser of MPA will coordinate and give handholding support to the CSP.
- 3. A selected SHG will manage the NRC.
  - a. The capacity building of the SHG will be conducted locally with the help of PMU/MPA/KVK/ICDS
  - b. Different demonstrations and income generation activities will be taken by the SHG such as mushroom cultivation, nutritional kitchen garden and vermicompost in the campus of NRC.
- Different activities such as poster & video extension, collaboration with Anganwadi, linking with local school, linking with SHGs, cookery competitions will be organized by NRC.
- 5. Display and sale of nutritional foods will also be a profitable activity for this center.
- 6. A monthly interface is organized for all CRPs of concerned GP in the NRC for discussion on health & nutrition.

## Infrastructure:

The available infrastructure i.e, existing building of MPA or OPELIP can be utilized for this purpose. The vacant unutilized building of other departments can also be used after obtaining permission from the same department. An amount of Rs. 50,000.00 may be utilized to make the building operational as Nutrition Resource Centre. No new construction of building is allowed for NRC. The ideal dimension of building should be 15 feet x 10 feet.

Beautification of building with different posters relating to nutrition, provisioning of racks will also be made. There is also provisioning of funds for chairs, tables, almirah, LED TV, dari, toys etc.

## Funding and Sustainability:

The establishment of NRC will cost Rs.2.5 to Rs. 3.0 lakhs according to the indicative operational cost attached in Annexure 1. The NRC model is on self-subsistence, and the remuneration of CSP can be met from demonstration units. The CSP and SHG will make it functional and operational.

Nominal operational costs can be met from profits out of selling of valueadded products etc. The CSP and SHG will also act as resource persons for various training programme. Funding from other sources can also be dovetailed, to make it more viable and sustainable.

## **Operational Management:**

A key SHG will be selected to manage the NRC. The selected SHG should be top in gradation assessment and financially sound. It should be in the close vicinity of the NRC and also it should have sufficient deposits.

A lead CSP will be selected, among the selected SHG, preferably from PVTG/Tribal community and must be a woman. Young dynamic, recent pass out of local school should be preferred. She should be having minimum

educational qualification of more than 8th class or able to read & write with good communication skill. The CSP will be in overall charge of the NRC. The CSP should open the NRC on daily basis. She should clean and maintain it properly. She will not be paid from the programme and she will earn from mushroom and kitchen garden unit.

The NRC should be open for minimum 4 hours in a day. The opening time of NRC should be decided in consultation with the VDC. The timing of NRC should not coincide with the timing of Anganwadi Centre. The CSP should maintain the accounts of the NRC.

The Community Institution & Nutrition Officer of FNGO and Social Mobiliser of MPA will coordinate and give handholding support to the CSP to make it operational and sustainable.

## Capacity Building:

The capacity building of the SHG will be conducted locally with the help of PMU/MPA/KVK/ICDS on nutritional aspect such as nutritional knowledge, nutritional recipes, processing of nutritional foods, health and sanitation, maternity & child care etc.

The CSP will be trained min. for 15 days in 3 batches in dedicated institution at State level on nutrition and management aspect of NRC. The cost of training can be met from regular funding of AWPB on various CB events.

### Activities:

The main objective of the project was to create awareness and impart knowledge amongst the tribal communities suffering from malnourishment. It is an irony that in spite of having easy access to all the natural resources, these communities are facing such nourishment problems. Keeping the above facts in mind, OPELIP is adopting a unique strategy of imparting them the knowledge and building their capacity to utilize the naturally-available resources.



The activities promoted by Nutri Resource Centre are as follows:

#### Agri nutrition through posters and video extension:

Nutrition education can be very effective with innovative instructional tools like posters and video. Educating people with posters will also very effective. Different posters relating to nutritional food, baby caring etc. will be posted there to enhance the knowledge of the visitors/ women coming to the center.

Video has been proved very effective as it involves the senses of both seeing and hearing. Hence, in order to utilize Information and Communication Technology (ICT) tools like video and women's leisure time effectively. Videos on nutrition like Anaemia-Blood and Iron deficiency, Nutrition tips for improving health, Nutritional Management of Eyes, Vitamin A Benefits, Hand Washing, General Immunization, Polio Immunization, ORS Benefits etc. in local language will be regularly shown to the villagers through Computers/LED TV (NRC), Laptops and Pico projectors.

#### Collaboration with Jiban Sampark:

With implementation of UNICEF initiated Jiban Sampark Programme in all PVTG villages with joint collaboration with DFHW, DWCD, STSCDD & AIIMS, children in the age group of 0-5 years and pregnant/lactating women in PVTG communities shall have increased access to health & nutrition services.

The lead CSP of NRC shall have complete orientation from the frontline workers like DHFW & DWCD and CRPs who shall be trained through the programme. The improved capacity shall lead to quality delivery of existing Govt. services related to maternal, infant and young child health & nutrition. Families in PVTG communities in turn shall have access to information and councelling to improve the survival and growth of their children and health of mothers.

It is planned for convening a monthly interface of all CRPs of concerned GP in the NRC wherein, the lead CSP shall facilitate such interface with presence of other concerned frontline workers like AWW, ASHA, ANM. The issues, critical gaps of the NRC shall be discussed on that day along with spreading of information on health & nutrition received through Jiban Sampark. The take home message shall be carry forwarded by all CRPs to their respective GPs.

In toto, such intervention will support the introduction of systematic community mobilization, use of innovative communication methods and tools to engage communities on issues related to health , hygiene and nutrition.

#### Collaboration with Anganwadis:

Collaboration with Anganwadi workers will also be established. The Anganwadi workers are the government gross root nutri-meal workers; they not only provide nutri-foods to pregnant women and children, they also deliver the messages to rural women about healthy foods to be taken during pregnancy, about calcium and iron tablets, vaccination etc. Hence, National Nutrition Week will also be celebrated in *Nutritional Resource Center* with the involvement of anganwadi workers. The close link they have with rural women is being utilized properly to increase the nutrition awareness among the rural masses.

#### Linking with Local School:

NRC should work with nearby school to assess the school children's knowledge level on nutrition, organisation of nutri-awareness programme and nutria-quiz programme for school children. Nutri Resource Centre in collaboration with MPA/FNGO will organize such programme in the school. Apart from the fact that children are the vulnerable group and majorly affected by malnutrition, they are the messengers to their parents. With the hope that they convey the messages to their parents and other family members, they are also included in the target group. Nutritional Kitchen gardens will also be promoted in the schools. The SHG and CSP with the help of school will monitor the same.

#### Linking with Self Help Groups:

Self Help Groups are the organized platforms for rural women. In general, women are the major decision makers in preparation of food; and they are the one who prepare food for their household members. The Nutri Smart Centre weekly organize meetings with the SHGs for nutrition related aspects and create awareness and conduct capacity building programmes for rural women, to achieve the desired results efficiently.

#### Cookery Competitions:

The Nutritional Smart center will organize cookery competitions on preparation of nutritional food in regular intervals among the SHG member.

It will promote and popularization of different nutritional dishes among the tribal community.

Display and Sale of Nutritional Foods:

The center will encourage the SHGs to produce different nutritional crops and also value addition of the products. Different SHGs will display and sale different nutritional products through this Centre.

Ready to eat nutritional baby foods will also be available in this center on business model by lead SHG. The lead SHG running the Nutritional Resource Centre will build the capacity of other women to prepare different types of nutritional foods/packets etc.

Nutritional Resource center as a creche:

This will also act as creche for children and toddlers of the locality. The children and toddlers will come with their mother to this unit. There will also be provision of toys/ educational toys for playing. It will facilitate the mothers to spent more time in the center.

Nutritional Resource center as demonstration point:

#### Mushroom:

Mushroom are "powerhouse of nutrition". They are Low in calories, fat and cholesterol-free. It contains a modest amount of fiber, over a dozen minerals & vitamins, including copper, potassium, magnesium, zinc and a number of B vitamins such as folate. Mushrooms are also high in antioxidants like selenium and glutathione.

Mushroom cultivation is a good livelihood options for the tribal poor having less or no agricultural land. Mushroom has a very good market nearby MPA areas and also the surplus products will also address the nutritional deficit of the target people. CSP will be in charge of the mushroom unit and the profits from the same will be taken by the CSP. A 100 bed/day unit will be established adjacent to the Nutri Resource Centre.

#### Model Nutritional Kitchen garden:

concept of farming The and cultivation is not new to the tribal communities of India. However, it has remained limited to cash crop cultivation and mostly used for revenue generation. The main objective of introducing the concept of nutri-gardens was to tribal encourage women to cultivate healthy food crops in their backyards. A nutri-garden ensures an inexpensive, regular handy supply of fresh and



vegetables, which are basic to nutrition. Green vegetables contain vitamins and minerals, which protect us against diseases. Tribal and rural communities have easy access to all the essential resources like land and water but they lack knowledge about the nutritional value and scientific consumption pattern of the available and easily-cultivable nutritious food products. Hence, nutri-gardens may be regarded as a simple but innovative option to:

- Bridge the gap between the available resources and its utilization in a sustainable manner
- Address issues like malnutrition
- Create additional revenue-generating opportunities for farmer communities, especially women

• Introduce healthy eating practices

#### Importance of selected crops

The three main crops selected were papaya, sweet potato, mushroom and drumstick. Other nutritional vegetables such as palak, leafy greens, radish, cowpea, bitter gourd etc. will also be taken round the year in three seasons.

The reasons for their selection are:

- 1. Available throughout the year
- 2. Easily grown in the agro-climatic conditions
- 3. Highly nutritious

4. Can be easily purchased from local markets at affordable rates, if the cultivation is taking longer

Palak	<ul> <li>Excellent Source of Fiber</li> <li>High in vitamin A &amp; C</li> <li>High in Iron &amp; Folate</li> <li>Good source of Magnesium</li> <li>Can be grown throughout the year</li> </ul>				
Рарауа	<ul> <li>Good source of potassium</li> <li>Excellent source of vitamins A &amp; C</li> <li>Require less water and can be grown in a type of soil</li> <li>improves digestion by breaking down proteir</li> </ul>				
Mushroom	<ul> <li>Good source of proteins</li> <li>Excellent source of vitamins &amp; minerals</li> <li>Least resource utilization</li> <li>high in antioxidants like selenium and glutathione</li> </ul>				
Sweet Potato	<ul> <li>Good source of potassium and vitamin A</li> <li>High level of proteins and fibers</li> <li>Drought Resistance</li> <li>Least resource utilization</li> </ul>				
Yard long bean	<ul> <li>Low in fat and calorie</li> <li>Rich in anti-oxidants</li> <li>Removes free radicals</li> <li>Controls blood cholesterol</li> </ul>				

Okra	<ul> <li>Boost Immune system</li> <li>High in vitamin A</li> <li>Good source of vitamin C</li> <li>High in Fiber</li> </ul>
Bitter Gourd	<ul> <li>good source of Thiamin, Riboflavin, Vitamin B6, Pantothenic Acid, Iron and Phosphorus</li> <li>very good source of Dietary Fiber,</li> <li>source of Vitamin A, Vitamin C, Folate,</li> <li>Good source of Magnesium, Potassium, Zinc and Manganese.</li> </ul>
Drumstick	<ul> <li>4 times more Vitamin A than Carrot</li> <li>4 times more calcium than milk</li> <li>7 times more vitamin than orange</li> <li>0 % cholesterol</li> </ul>

Figure No.1: Importance of selected crops

The model kitchen garden will include usage of diversified seeds and improved sustainable farming practices. Adoption of this model at household enhances access to vegetables and fruits, increases skill sets in usage of sustainable agricultural practices and utilization of nutri-dense foods and also provides additional income generation activities.

It will be demonstrated adjacent to the Resource Centre. New innovative model with drum irrigation kit and other nutritional horticultural plants such as papaya, sweet potato, drum stick, guava, banana, lemon etc. will also be demonstrated. Other nutritional programmes such as *Sath Din Sath Ghar* and *Tiranga Thali* will also be demonstrated. Selected vegetables, planting time, nutritional information of various vegetables given in Annexure-2 to 5.

Model of NRC given in Annexure-6 to 8.

#### Oraganic Manure:

The NRC should also have a Vermin compost and organic manure demonstration unit. Vermin composting is a method of preparing enriched compost with use of earthworms by turning organic wastes to very highquality compost. It is rich in nutrients, growth promoting substances, beneficial soil micro flora and having properties of inhibiting pathogenic microbes.

**Construction of Compost tank:** Vermi-composting tank with dividing wall in the middle will be in two parts, each of inner size 3.6m X 0.76m X 0.6m, so that these two parts can be used in rotation or at a time. The wall will be 23cm thick in cement mortar with few openings covered with wire mesh for aeration to earth worms. The floor of the tank will be made with bricks& plastered having proper drainage system. The tank will be covered with thatched roof open from all sides.





#### Amrutpani :

Amrut is the heavenly drink, which refreshes the gods and has the power to resurrect the dead. In the same manner, Amrutpani invigorates the living soil and converts a dead soil into a living one. Amrutpani is liquid manure, like Panchagavya, Amrutpani is also used to improve the soil fertility.

### **Ingredients :**

- 1. 1 kg cow dung
- 2. 1 litre cow urine
- 3. 200 gm jaggery
- 4. 200 gm gram flour
- 5. handful of native soil
- 6. 20 litres of water



**Procedure:** Mix all the ingredients and let it ferment for 3 days. Stir once in the morning and again in the evening every day. Stir the mixture clockwise and then anticlockwise for creating froth and bubbles to aid oxygenation. Try it out a few times to get the hang of the right time to use it based on the amount of fizz generated - max fizz implies max bacterial population. It could be day3 or day4 or day5 depending on various environmental conditions.

When ready to use, dilute 1:9 i.e add 20 litres to 180 litres of water. This seems to work well. The dilution is a function of how much bacterial inoculant and in how big an area you are planning to use. It is important to note that by doing so you are not only giving nutrient input but also restoring bacterial culture of the soil.

#### Annexure 1

SI.	Name of Activity	Amount in	Remarks
No		Rs.	
1	Repair or restoration of old building	50,000.00	As per actual
	with beautification, racks etc.		
2	Display of Posters through wall painting	20,000.00	
	/flex etc. inside and outside the		
	building		
3	Table, Plastic Chair (10), Almirah, Dari,	80,000.00	
	big playing Toys like in creche		
4	Vermi compost and Organic Manures	20,000.00	
	unit		
5	Pico Projector for demonstration in	40,000.00	
	schools/other villages and videos		
6	Organizing different competition,	10,000.00	

	observation of nutritional week,		
	conducting events in school etc. (per		
	year)		
7	Value addition/packaging/display/other	20,000.00	
	raw materials		
8	Mushroom Unit		Regular
			Funding
9	Model Kitchen Garden but only critical	10,000.00	Regular
	input if any innovative model		Funding
	TOTAL	2,50,000.00	(Rs. Two Lakhs
		Fifty Thousand	l Only)

**NB:** Interchanging of sub-head budget with up to 20 % plus or minus may be allowed as per field condition. Major changes should be sent for approval of Programme Director, OPELIP.

# Annexure 2

## Selected vegetables

Group	Crop Calendar	Kharif	Rabi	Summer
Roots and Tuber	Sweet Potato, Radish, Onion, Garlic, Yam, Elephant Foot Yam(EFY), Carrot, Beat, Knol khol	Sweet Potato, Radish, yam, EFY	Onion, Garlic, Carrot, Beat, Knol khol	Onion
Leafy Vegetables	Khada, Kalam, Basila, Kosla, Spinach, Coriander, Podina	Khada, Kalam, Basila	Kosola, Coriander, Khada, Podina, Spinach	Khada, Coriander, Spinach, Kalam
Gourd / Creepers	Small gourd, cucumber, ridge gourd, bottle gourd, bitter gourd, snake gourd, pumpkin, ash gourd	Small gourd, cucumber, ridge gourd, bottle gourd, bitter gourd, snake gourd, pumpkin, ash gourd	Small gourd, cucumber, ridge gourd, bottle gourd, bitter gourd, snake gourd, pumpkin,	Small gourd, cucumber, ridge gourd, bottle gourd, bitter gourd, snake gourd, pumpkin,
Nut, seeds, beans	Cow pea, green pea, long bean, cluster bean, French bean, country bean	Cow pea, , long bean, cluster bean, French bean,	Cow pea, green pea, cluster bean, French bean, country bean	Cow pea, cluster bean,
Transplanted Vegetables	Tomato, chilli, brinjal, cabbage,, cauliflower, okra	Brinjal, chilli, okra	Tomato, chilli, brinjal, cabbage,, cauliflower, okra	Chilli, brinjal, okra
Fruit	Papaya, Banana, drumstick, Iemon / lime	Papaya, Banana, drumstick, Iemon / lime	Papaya, Banana, drumstick, Iemon / lime	Papaya, Banana, drumstick, lemon/lime

## Annexure 3

## Planting Calendar

SI No	Vegetable	Season	Duration of Crop		
1	Ash gourd	July-Nov	140-150		
		Dec-April	days		
2	Beans	September- January	90- 130 days		
3	Bitter gourd	Nov - Mar	90-125 days		
4	Bottle gourd	July-Aug Oct-Nov	120-150 days		
5	Brinjal	Dec-Jan			
6	Chilli	October-April	210-240 days		
7	Cluster beans-	July-Aug Nov-Dec	90-105 days		
8	Coriander	June-July Oct-Nov	30-40 days		
9	Cucumber	June-July Jan-April	90 – 100 days		
10	Carrot	Sep-Dec			
11	Drumstick	June-July	10 years		
12	Lady's finger	Jan-Feb July- August	100-110 days		
13	Pumpkin	July-Jan Dec-April	Varies according to variety		
14	Snake gourd	July-Dec Dec-April	135-180 days		
15	Radish	Sep-Oct	45-60 days		
16	Tomato	Sep-Oct			
17	Amaranthus	All	125-145 days		

## Annexure 4 :

# Table 1. <sup>1</sup>Nutritional composition of vegetables per 100 g edibleportion

Vegetable crops	Energy (Kcal)	Moisture (g)	Protein (g)	Fat (g)	Carbo hydrates (g)	Fiber (g)
Amaranth	45.0	85.7	4.0	0.5	6.1	1.0
Basella	32.0	90.8	2.8	0.4	4.2	-
Bittergourd	25.0	92.4	1.6	0.2	4.2	1.7
Bottle gourd	12.0	96.1	0.2	0.1	2.5	1.5
Brinjal	24.0	92.7	1.4	0.3	4.0	-
Bengal gram leaves	97.0	73.4	7.0	1.4	14.1	-
Cabbage	24.0	92.4	1.3	0.2	5.4	1.5
Capsicum	29.0	92.5	1.2	0.2	4.0	2.5
Chilli	29.0	82.6	2.9	0.6	6.1	6.7
Carrot	42.0	88.6	1.1	0.2	9.1	1.0
Coriander leaves	44.0	66.3	3.3	0.6	6.3	-
Cassava	157.0	59.4	0.7	0.2	38.1	-
Cauliflower	27.0	91.0	2.7	0.2	5.2	0.9
Cucumber	18.0	96.3	0.4	0.1	2.5	0.6
Drumstick leaves	92.0	76.0	6.7	1.7	12.7	0.9
Fenugreek leaves	49.0	86.1	4.4	0.9	6.0	1.1
French bean	30.0	62.0	6.3	0.1	29.8	4.0
Garlic	32.0	90.1	1.9	0.2	7.1	0.8
Knolkhol	29.0	90.3	2.0	0.1	6.6	1.1
Leek	77.0	78.9	1.8	0.1	17.2	1.3
Mint	48.0	84.9	4.8	0.6	5.8	2.0
Mustard leaves	34.0	89.8	4.0	0.6.	3.2	1.5
Okra	35.0	89.6	1.9	0.2	6.4	1.2
Onion	50.0	86.6	1.2	0.1	11.1	0.5
Реа	84.0	78.0	6.3	0.4	14.4	4.0
Pointed gourd	20.0	92.0	2.0	0.3	2.2	3.0
Pumpkin	25.0	92.6	1.4	0.1	4.6	0.5
Radish	17.0	94.4	0.7	0.1	3.4	0.7
Sponge gourd	18.0	93.2	1.2	0.2	2.9	0.5
Spinach	26.0	90.7	3.2	0.3	4.3	-
Sweet potato	124.0	68.5	1.8	0.7	28.0	1.0
Tomato	22.0	93.5	1.1	0.2	4.7	0.7
Turnip green	67.0	8.9	4.0	1.5	9.4	-

Watermelon	26.0	92.6	0.5	0.2	6.4	0.2
Yam	102.0	74.0	1.5	0.2	24.0	-
Taro corm (Arvi)	97.0	73.1	3.0	0.1	22.1	-
Cowpea leaves	51.0	84.6	4.3	0.2	8.0	-

## Annexure 5 :

	•	5	•		•
Crops	Vitamin A (IU)	Thiamin (mg)	Riboflavin (mg)	Niacin (mg)	Vitamin C (mg)
Amaranth	9,108	0.03	0.30	1.2	99.9
Basella	12,276	0.03	0.16	0.5	87.0
Bittergourd	208	0.07	0.09	0.5	88.0
Bottle gourd	traces	0.03	0.01	0.2	6.0
Brinjal	122	0.04	0.11	0.9	12.0
Cabbage	130	0.05	0.05	0.03	47
Capsicum	900	0.06	0.06	0.5	175
Chilli (green)	454	0.06	0.03	0.6	111
Carrot	11,000	0.06	0.05	0.6	8
Coriander leaves	11,168	0.50	0.06	-	135
Cassava	700	0.05	0.10	0.3	25
Cauliflower	60	0.11	0.10	0.7	78
Cucumber	0.00	0.03	0.0	0.2	7
Drumstick leaves	11,187	0.06	0.05	0.8	220
Fenugreek leaves	3,861	0.04	0.31	0.8	52
French bean	10	0.06	0.23	0.4	13
Garlic	600	0.08	0.11	0.5	19
Knolkhol	20	0.06	0.04	0.3	66
Mint	2,700	0.05	0.20	0.4	750
Mustard leaves	4,200	0.03	-	-	33
Okra	172	0.07	0.10	0.6	13
Onion	35	0.08	0.01	0.4	11
Pea	640	0.35	0.14	2.4	27
Pointed gourd	252	0.05	0.06	0.5	29
Pumpkin	2180	0.06	0.04	0.05	2
Radish	5	0.06	0.04	0.05	15
Bengal gram leaves	1564	0.09	0.10	-	61
Sponge gourd	369	0.02	0.06	0.4	0
Spinach	8100	0.10	0.20	0.6	51
Sweet potato	8800	0.10	0.06	0.6	21

## Table 2. Vitamin composition of vegetables per 100 g edible portion

Tomato	900	0.06	0.04	0.7	23
Turnip green	15691	0.31	0.57	5.4	180
Taro corm (Arvi)	166	0.09	0.03	-	0
Cowpea pods	941	0.07	0.09	0.9	13
Yam	-	0.1	0.01	0.8	15

#### Annexure-6

## NUTRITION RESOURCE CENTRE (NRC)







## Annexure-7

## NUTRITION RESOURCE CENTRE (NRC)



Nutritional Garde	n (Rabi)	
Palak	Kosala	Carrot
Radish	Bean	Cow Pea
	Brocolli	



## Annexure-8

## **NUTRITION RESOURCE CENTRE (NRC)**



Leutia	Khada Red	Chilly
Cow Pea	Ocra	Cucumber
	Ridge Gourd	





#### ODISHA PVTG EMPOWERMENT AND LIVELIHOODS IMPROVEMENT PROGRAMME

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