

# Reflections on Gender and Nutrition aspects of Kodo and Kutki Value chains in India:

Case of Mandla and Dindori districts of Madhya Pradesh

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M.S.Swaminathan Research Foundation

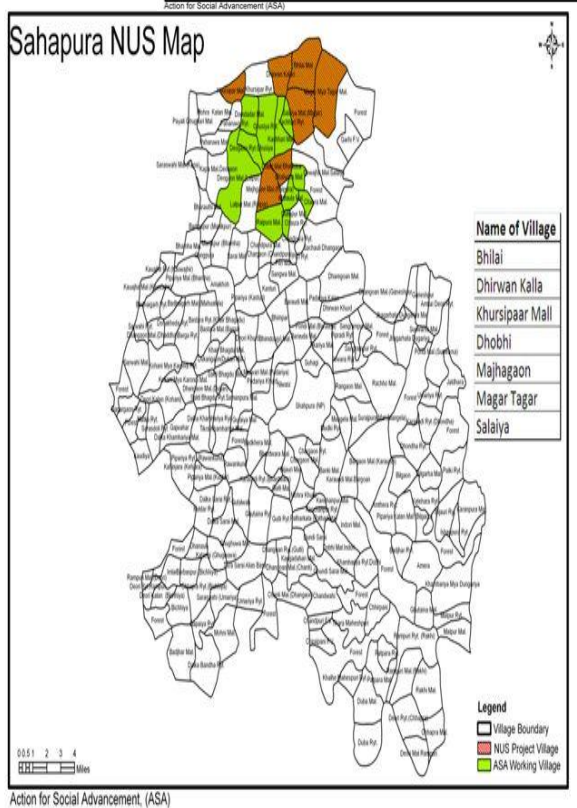
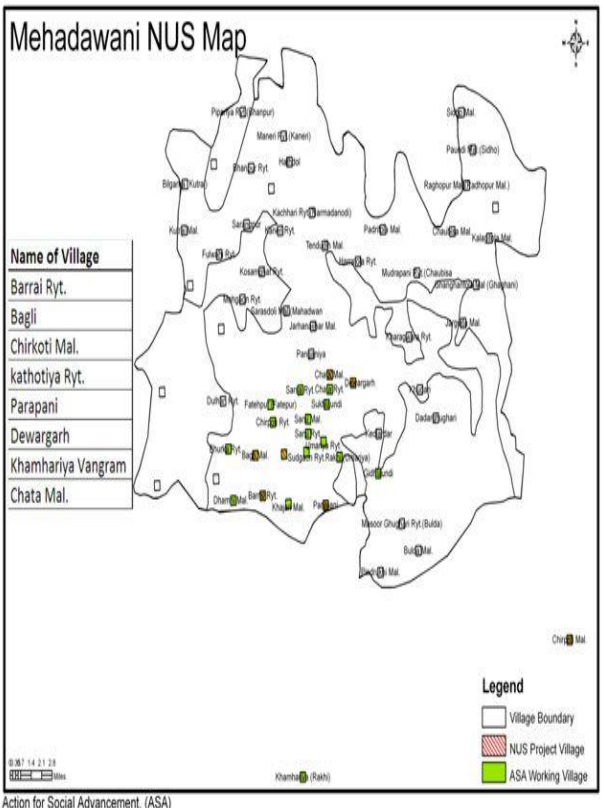
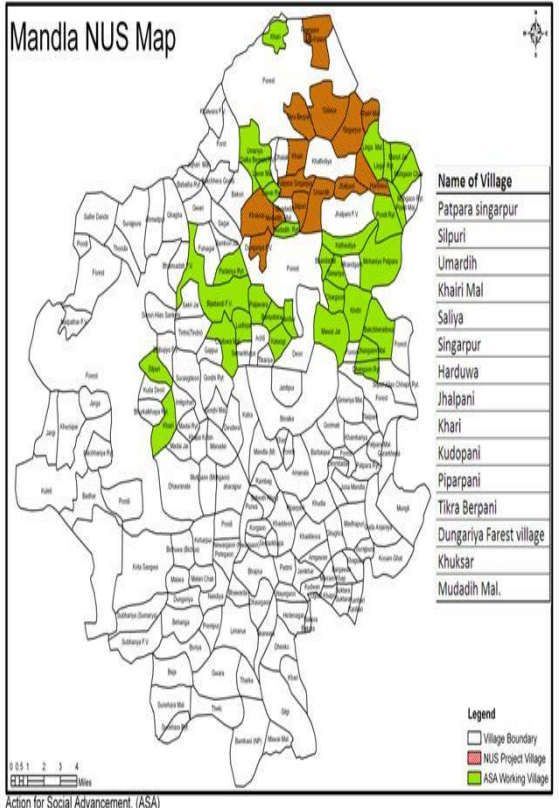
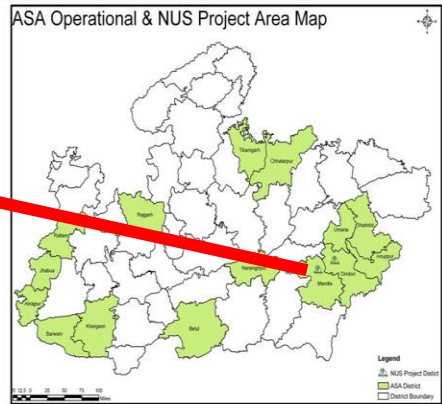
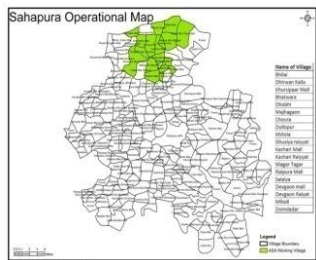
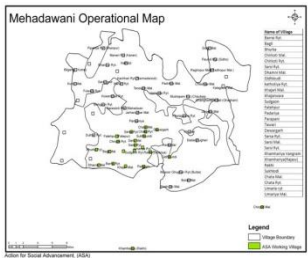
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## **Steering Committee Meeting and Workshop**

*Linking agrobiodiversity value chains, climate adaptation and nutrition: Empowering  
the poor to manage risk*

Bioversity International, Maccaresse  
(Rome), 17-19 May 2017

# NUS operational area in Mandla and Dindori



# Key Actors and Stakeholders

- Farm Families
- ASA colleagues
- Board of Directors and shareholders of the FPOs
- Officials from Agricultural Department
- Krishi Vikas Kendra, AICRIPS (ICAR)
- National Rural Livelihood Mission
- Retailers and wholesalers
- Regulated Markets (APMC)
- Processing Mill owners
- Other NGOs in the region
- Nasik, Bhopal, Jabalpur, Mandla and Dindori markets and chain actors



# Crop diversity in Manda and Dindori

Name of Crops	Name of Crops
<b>Cereals</b>	<b>Vegetables</b>
<i>Oryza sativa</i>	<i>Momordica charantia</i>
<i>Zea mays</i>	<i>Abelmoschus esculentus</i>
<i>Panicum sumatrense</i> (Kutki)	<i>Solanum melongena</i>
<i>Paspalum scorbiculatum</i> (Kodo)	<i>Solanum lycopersicum</i>
<i>Triticum aestivum</i>	<i>Coccinia grandis</i>
<i>Hordeum vulgare</i>	<i>Coriandrum sativum</i>
<i>Pennisetum glaucum</i>	<i>Allium cepa</i>
<i>Eleusine coracana</i>	<i>Capiscum sp.</i>
<i>Echinochloa frumentacea</i>	<i>Brassica oleracea</i>
<i>Setaria italica</i>	<i>Solanum tuberosum</i>
<b>Legumes</b>	
<i>Cajanus cajan</i>	
<i>Cicer arietinum</i>	
<i>Lens culinaris</i>	<b>Oilseed</b>
<i>Vigna mungo</i>	<i>Guizotia abyssinica</i>
<i>Lablab purpureus</i>	
<i>Pisum sativum</i>	
<i>Vigna unguiculata</i>	
<i>Glycine max</i>	

# Millet Crops and System

- Undulating landscape with upland soil and drylands
- Strategic Crops and Systems: kodo (*Paspalum scrobiculatum*, kutki (*Panicum sumatrense*) and other minor millets
- Area and production of these two crops from 1986 to 2010 shows a steep decline
  - area under cultivation went down to 3.09 Lakh Ha from 11.97 Lakh Ha
  - production declined to 1.25 Lakh tonnes from 2.92 Lakh tonne
  - productivity has seen an increase from 243 to 408 kg/ha.



# Millet Varieties, Seasonality and Cropping pattern

Name of Variety	Sowing Month	Duration	Soil type
Chote kodo	August	80 days	Black
Ladhri kodo	August	110 days	Black
Bade kodo	August	135 days	Black

Name of Variety	Sowing Month	Duration	Soil type
Batheli	June	60 days	Black
Nagtharan	July	110 days	Black
Bade Kutki	June	135 days	Black
Dongar kutki	June	140 days	Black
Seathai kutki	September	70 days	Black
Kali kutki	August-September	70 days	Black

Mixed cropping pattern in millet cultivation :

- (Little Millet + Niger),
- Little Millet + Amaranth)
- (Little Millet + Arhar)
- (Kodo Millet + Dhal)

# Consumption Pattern of Tribal Households

Food group	Sample HHs	Consuming HHs	% of HHs	Average frequency of consumption in a week
Main Staples	297	285	95.96	6.80
Pulses and nuts	297	249	83.84	3.82
Vegetables	297	280	94.28	4.27
Fruits	297	133	44.78	0.64
Meat and Fish	297	172	57.91	0.75
Milk and milk products	297	144	48.48	1.33
Oil and fats	297	212	71.38	4.16
sweets	297	86	28.96	3.74

## Consumption pattern of Millets

Name of Millets	Consuming HHs	% of HHs	Frequency of consumption in a week			
			Once a week	Twice a week	Three times a week	Four times a week
Kodo Millet	147	49.50	0	50	82	15
Kuti Millet	144	48.48	1	57	67	19

# Gender division role in Kodo millet farming – Perception of Men

Activity	Men	Women	Both
Land preparation of slope land			✓
Ploughing with bullock	✓		
Cleaning the land during ploughing			✓
Seed selection (Advice from other in the community is also data)		✓	
Cleaning of seeds			✓
Seed broadcasting			✓
Taking care			✓
Monitoring			✓
Soil Health (Fertilizer)			✓
Harvest – Cutting			✓
Tying bundles	✓		
Transporting Bundles			✓
Threshing Bundles			✓
Winnowing	✓		
Transporting to home			✓
Where to sell decision			✓
Processing (Cleaning & Rice for domestic purpose)		✓	
Saving		✓	



Silpuri village of Mandla



# Gender division of role in Kodo millet farming – Perception of Women

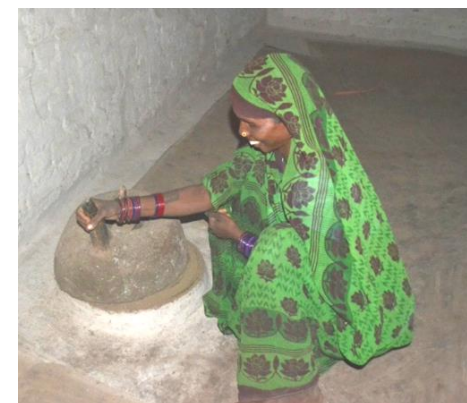
Activity	Men	Wo men	Both
Land preparation	✓		
Ploughing & Cleaning	✓		✓
Sowing	✓		
Weeding		✓	
Harvesting			✓
Bounding in small			✓
Bounding larger			✓
Transporting			✓
Storing at one place	✓		
Cutting		✓	
Threshing			✓
Grading & Winnowing	✓		
Market information gathering			✓
Smaller sales			✓
Bigger sales	✓		
Seeds saving		✓	
Processing			✓
Storages			✓



- **Traditional processing equipments;** Jathaa (it is a traditional grinder that made out of mud), sakki (it is traditional grinder that made out of stone)

# Gender division of role in Little millet farming system – Perception of men

Activity	Men	Women	Both
Land selection			✓
Ploughing & Cleaning the field	✓		
Seed Selection			✓
Seed Cleaning		✓	
Sowing	✓		
Taking care & Field			✓
Weed			✓
Fertilizer			✓
Ploughing feed for harvest			✓
Harvesting			✓
Bounding in small	✓		
Bounding in large			✓
Storing at one place			✓
Threshing with seeds			✓
Winnowing			✓
Transporting produce to home			✓
Marketing decision			✓
Decision to keep seeds		✓	
Decision to save			✓



# Gender division of role in Little Millet farming – Perception of Women

Activity	Men	Women	Both
Land preparation			
Weeding			
Harvesting			✓
Bundling	✓		
Transporting bundles			✓
Collecting bundles in one place			✓
Bundles opening			✓
Winnowing	✓		
Saving seeds		✓	
Processing		✓	



Okkiri  
(or)  
Musar  
(it is  
pound  
ing  
stick);

- **storage systems for grain and seeds; Koti (made out of straw and mud), Khudusa (made out of bamboo)**

# Radhe Syam Chawla Hehuller in Mandla town

- processing mill at Mandla. Unit has a pulverising and de-hulling facility.
- Source millet grains from farmers, grocery shop owners and mundy at rate of Rs. 20 to 25/kg.
- After processing, sells processed millet rice at rate of Rs. 80/kg.
- initiated the unit about 15 years back with one paddy huller and pulveriser.
- Agriculture department, Kanpur supported him with new Machines for processing Kodo and Kutki, but that is not used now due to low recovery
- Customised paddy huller for processing small millet.
- Current recovery is 60 %.



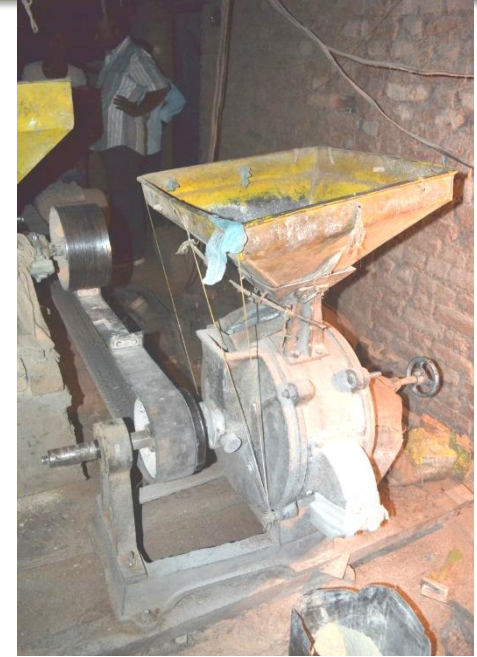
# Lakshmi bai mill in Kodopani village of Mandla

- Lakshmi bai Murari and family members are running millet cum paddy processing unit in Kodopani village of Mandla district
- Paddy hulling and pulverising mill in 2014
- In the pulverizing mill, they process Kodo millet and little millet by adjusting plates
- The average recovery of millets is 70 %
- The traditional way of pounding and pulverising is still common across villages

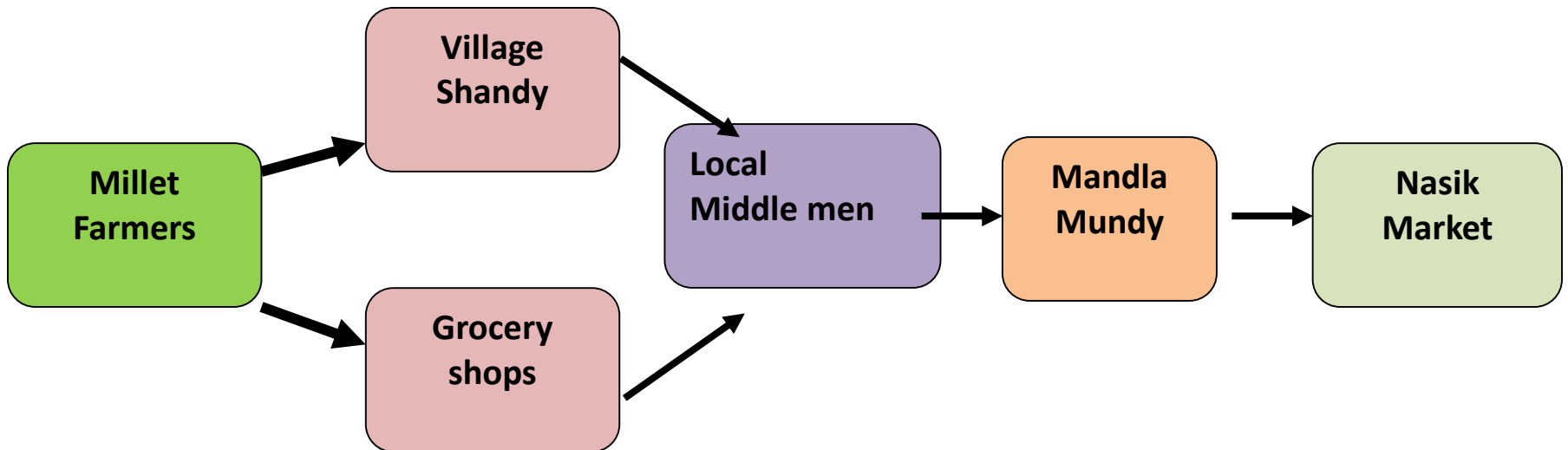


# Millet processing Mill in Kanari village of Dindori district

- processing mills one is for millet and another one for paddy hulling established mill three years ago
- People are coming from nearby 15 villages
- Processing charge is Rs.6/4 kgs (kodo) and Rs.5/4 kgs (Kutki)
- Mostly women are coming for process of millets
- One hour will take for process of 80 kgs of either millet
- Recovery is 60 % to 70 % in Kutki and 50 % to 60 % in Kodo
- Processing 3 to 4 quintal per day
- husk are used by the farmers as manure



# Conventional supply chain





Sapura Mundy at Dindori district



# Agricultural Produce Marketing Committee, Mandla Town



- The *Rani Dhurkavathi Krishi Ubaj Mandi samiti* is located in the Mandla town.
- The APMC is to regulate millets and other agri produce of the region in terms building relationship between buyer and sellers.
- APMC has track record of transacting kodo millet and little millets to Nasik in Maharashtra and Anand in Gujarat.
- During the year 2016-17 in Mandla APMC; Kodo millet sold @ Rs. 1600 to Rs.1800 / quintal and Rs.2300 to Rs.2600/ quintal of little millet.
- The price fixation of millets is based on the market trends at Nasik.
- For instance, if one kgs of little millet is Rs. 25 at Nasik, then, Rs.20/kg at Mandla mundy.
- The trader located at Nasik will inform price information to mundy trader, based on that price is fixed on a daily basis during the season.
- Since there is no processing industry established in Mandla or Dindori region, millets grown in this region moves out of the state to Nasik

# Traders dealing with millets in Mandla

<b>Name of trader</b>
M.OM. Traders
SSDN Kamal Kishor trader and Ahuja traders
Naresh kumar killumal
Kannaiyah lal Kailash kumar ravath trader
OM santhi
Jai prakash trader
Bhavath prasath saish wal
Chantha mama trading company
Sham kumar, kishor kumar trader
Kamal traders
Naresh kumar killumal
Vijayalakshmi traders
Ram Shahai Agarwal
Mahesh Shagu

# Traders and Processing mills in Nasik

<b>Name of traders</b>	<b>Location</b>
Sumangal Industry	Ghoti, Nasik
Gandhi Pulses	Anand, Gujarat
Utham sam thagudo ram	Panjrati, Nasik
Maha veer industry	Nasik
Ashirwad Industry	Nasik
Devansh Industries	Ghoti, Nasik
BokraJ Industries	Ghoti, Nasik
Dharsan Industries	Ghoti, Nasik
Hindustan Bagar mill	Jawar, Nasik
Yohi raj Industries	Nasik
Vijaya lal and Santhi lala	Bothra, Nasik
Shri Krishna Bhagar mill	Kolapur, Nasik
Anand food industries pvt ltd	Nasik
Suresh Kulchan	Sinner, Nasik

# Millets Transportation



- 16-18 MT per trip
- Adds on 2-3 Rs per kg
- Kodo millet, little millet from Simle guda of Koraput district in Odisha state to Nasik
- Truck freight from Odisha to Nasik is Rs. 50,000/trip and to Ghoti Rs. 60,000/trip

# Maharashtra Industrial Development Corporation (MIDC)

- Raw millet like Little millet, Kodo Millet, Barnyard Millet, Foxtail Millet are coming from various state such as Tamil Nadu, Karnataka, Andhra, Odisha, Chattishkar and Madhya Pradesh
- About 21 such bhagar mills are located in Nasik
- Raw millets are coming from various states like Tamil Nadu, Andhra, Karnataka, Madhya Pradesh, Chhattisgarh, Odisha
- Bhagar is consumed in Maharashtra and also in Gujarat and Madhya Pradesh JK enterprise is one of the largest bhagar mills in Nasik and they are selling bhagar in the size of 30 kg bags
- Average retail price of Bhagar Rs. 80-Rs.85 / Kg, Rs. 2500/Quintal)



# Chain of Cone Polishers, Sortex Machine, Abarasive processing technology



Bukh Raj Traders (Bhagar mill)

Ram Rao Nagar, Ghoti,

# Major Brands of Bhagar



Double Dolphin  
Miss World  
Prince  
Sonpari  
Pan Gold  
Anand Mangal  
Cycle Brand Varai  
Bhagal  
Aapki Pasand  
Agraj food Processors  
Bhagirathi  
Swastik  
Hira Moti  
AP enterprises  
Sabu  
Hyper city everyday  
SAM RAT



# Sharad Pavar Chandraji market yard, Nasik, Maharashtra

- largely consumed during fasting time by all the peoples of Hindus (mostly during ritual period)
- As per Hindu dharma (Rules), they should not eat rice/wheat and they should eat only bhagar and sabudana (made out of Cassava) during fasting time
- Uppma, Kitchadi, Gheer and Roti are major food items commonly prepared from Bhagar Fasting time will be in the month of August (During *Navrathri*)
- Fasting is followed by both men and women in Hindu religion include Children, youth and elders and no such practices in other religions like Muslim, Christian
- Fasting day for women are; Monday, Thursday and Friday and Saturday for men
- Retails price is Rs.80/Kgs of Bhagar (any kind of millet may be Kodo millet/little millet/Barnyard millet/Foxtail millet) and purchased price (from processing company or whole sellers) Rs. 65/kg)
- Price of Bhagar will be higher during this fasting period (August)





# Popular brands



# Popular brand

**डबल डॉल्फीन भगर**

300g Vg

**Double Dolphin**

**SORTEX BHAGER**

उपवास के लिए खास

NAVKAR FOODS

PRODUCT OF INDIA

Net Weight : 500g

**Double Dolphin**

**SORTEX BHAGER**

Bhagar also known as  
**Samo Bhagar • Morraiya**

Chichaoti, Upma, Thaipit, Kheer, Papad, Dosa, Dhokla, Appams, Idli

Bhagar Contains digestible fiber and is high in the nutritional content. As a rich source of minerals and vitamins, providing essential ingredients of diets.

**ISIRI**  
1151103/001577

Weight & Measure Lic. No. :  
MAHARASHTRA/MS/2014/922

**Prepared under 100% Hygienic and Extra Modern Technique.**

**सुचना**  
उपवास के दौरान से योग्य मात्रा में भगर को खाने से बचने में निकास। भगर को साफ कर ले और थोड़ा पानी के साथी तरह धोकर पकाए।  
सोडा मिला हुआ नहीं है।  
एक खीरे के समय, एक के अंदर किसी प्रकार के जैतून तेल पर मूल्य दुकानदार से बदलने की बात करें।

**KEEP IN COOL & DRY PLACE**

**6 NAVKAR**

**डॉल्फीन भगर**

उपवास के लिए खास

**Nutrition Facts**  
Each 100g contains (uncooked Bhagar)

PARAMETERS	VALUES
Energy (Kcal)	331.89 Kcal
Protein	8.7 gm
Fat	0.94 gm
Total Carbohydrates	78.97 gm
Iron	0.68 mg
Calcium	12.64 mg
Cholesterol	
Vit. A	
Vit. C	

Contents : GURJI BHAGAR  
Net Weight : 500g  
Batch No./Lot No. :  
Packed On :  
M.R.P. :  
(Inclusive of all taxes)

**BEST BEFORE WITHIN 6 MONTHS FROM THE DATE OF PACKING**

**6 NAVKAR** Prepared & Packed by  
**NAVKAR FOODS**  
Gul No. 426 at Ghorli (Madhwa) Dist. Nashik-422 452 (M.S.)  
Customer Care No. 181 99220 99999  
E-mail :  
navkarfoods@gmail.com



GLUTEN FREE

# UPWAS PARANTHA ATTA

UPWAS BHAJNI —

## SORTED WITH CARE

We prepare our product with love! Our product is triple filtered so that not a single impurity reaches your loved ones!

HOW TO PREPARE UPWAS PARANTHA

- STEP 1:** Add 1/2 cup water to 1 cup Upwas Parantha Atta. Add 1/4 cup boiled & mashed potato, 1 tbsp roasted crushed groundnuts, 1/2 tsp jeera powder, freshly chopped coriander leaves, green chilies and sencha salt as per taste. Knead the dough & divide into required number of portions.
- STEP 2:** Heat and grease non-stick tava using 4-5 tsp oil. Prepare upwas parantha (thickness around 4-5 mm) by spreading a layer of portion of dough on a clean plastic sheet with moist fingers. Place it on hot tava carefully & shallow fry on both sides till crispy and golden yellow in colour, using oil.
- STEP 3:** Serve hot with sweet curd or chutney.

### How to Store

Once opened, transfer the content to an air tight container. Use dry spoon

### Ingredients

Bhagar / Samak / Morrayo Flour, Rajgira Flour, Singhara Flour, Sabudana Flour

This food by its nature gluten free

### Manufactured by

Kindly read the first three digits of the batch no. and refer below

MUM:

Future Consumer Enterprise Limited  
Plot No. D-222/1A, MIDC Shirwane,  
Nerul LP, Navi Mumbai - 400 706,  
Maharashtra, India.

Lic. No. 11515017000135

IFP:

Integrated Food Park Pvt. Ltd.  
Vasantanarasapura, KIADB Industrial  
Area, Kora Hobli, Tumkur Tq and Dist  
District - Tumkur, State - Karnataka  
Pincode - 572 138.

Lic. No. 10015043001155

STORE IN COOL, DRY AND HYGIENIC CONDITIONS.

BEST BEFORE 6 MONTHS FROM THE DATE OF PACKAGING.



Net Weight  
200 g

### Nutritional Values Per 100 g (Approx.)

Energy (kcal)	367
Carbohydrates (g)	74
Of which Sugar (g)	0
Protein (g)	11
Fat (g)	3

### Marketed by

Future Consumer Enterprise Limited  
Knowledge House, Shyam Nagar,  
Jogeshwari (E), Mumbai - 400 060

Issai

Lic. No. 10014022003152

For consumer complaints/ feedback/ suggestions kindly contact Consumer Care Manager, address as mentioned above or email:

care@futureconsumer.in or  
Call: 18002100060

PKD:

15.FEB.2017  
MUM0887  
55.00

Batch No.:

MRP ₹  
(incl. of all taxes)



8 901153 606410

For your e-recipe book, write to us at care@futureconsumer.in



GLUTEN FREE

# SAMAK ATTA

BHAGAR / MORAIYO / VARAI FLOUR —

## SORTED WITH CARE

We prepare our product with love! Our product is triple filtered so that not a single impurity reaches your loved ones!

HOW TO PREPARE SAMAK PARANTHA



**STEP 1:** Add 2 medium sized hot mashed potatoes to 3/4 cup of Samak Atta. To this, add 1 or 2 ground chillies, 1/2 tsp cumin seeds, chopped coriander, ginger paste (optional), water and knead until a smooth dough is formed.

**STEP 2:** Split the dough into small bite-sized portions. Place each dough portion in between two clean plastic sheets and flatten them into small paranthas.

**STEP 3:** Heat up tava or a non-stick pan. Cook the flattened dough with some ghee or oil. Flip and cook until it looks golden brown. Serve hot with curd or chutney.

### Ingredients

Samak

This food is by its nature gluten free

### Manufactured by

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District - Tumkur, State - Karnataka  
Pincode - 572 138

Lic. No. 10015043001155

### How to Store

Once opened, transfer the content to an air tight container. Use dry spoon

STORE IN COOL, DRY AND HYGIENIC PLACE.

BEST BEFORE 6 MONTHS FROM THE DATE OF PACKAGING.



Net Weight  
200 g

### Nutritional Values Per 100 g (Approx.)

Energy in (kcal)	362
Carbohydrates (g)	77
Of which Sugar (g)	0
Protein (g)	9
Fat (g)	2
Potassium (mg)	215

### Marketed by

Future Consumer Enterprise Limited  
Knowledge House, Shyam Nagar,  
Jogeshwari (E), Mumbai - 400 060

Issai

Lic. No. 10014022003152

For consumer complaints/ feedback/ suggestions kindly contact Consumer Care Manager, address as mentioned above or email:

sharewithus@futuregroup.in or  
Call: 18002002255

For MRP ₹ (incl. of all taxes), Batch No. & PKD: refer below:

45.00  
MUM0888  
15.FEB.2017



8 901153 960442

For your e-recipe book, write to us at sharewithus@futuregroup.in

## Price details of raw millets grains from farmers to Mundy level

Name of millet	Farmer level	Local traders level	Middlemen level	Mundi level
Kodo	Rs.12-Rs.13/kg	Rs.13-Rs.14/kg	Rs.14-Rs.15/kg	Rs.16/kg
Kutki	Rs. 20 – Rs. 21/kg	Rs.22 – Rs. 23 /kg	Rs.23-Rs.24/kg	Rs. 25/kg

## Price details of millets from farmers to processing level

Name of millet	Procurement cost	Processing cost	Recovery in %	Packaging and labelling cost	Whole sale price	MRP
Kodo	Rs. 15/kg	Rs.3/Kg	45 % to 55 %	Rs. 5/kg	Rs. 70/kg	Rs. 85/kg
Kutki	Rs. 22/kg	Rs.3/Kg	45 % to 55 %	Rs. 5/kg	Rs.80/kg	Rs. 95/kg

## Price details of Bhagar during various seasons

Price during Fasting period (August)		Price during rest of the months	
Whole sale price	Retails price	Whole sale price	Retail price
Rs. 80-Rs.85/Kg	Rs.100-Rs.110/kg	Rs. 65/Kg	Rs.75-Rs.80/kg

# National Rural Livelihood Mission (NRLM), Mandla



# Kanha Krishi Vanopaj Producer Company Limited (Kanha KVPC) at Mandla







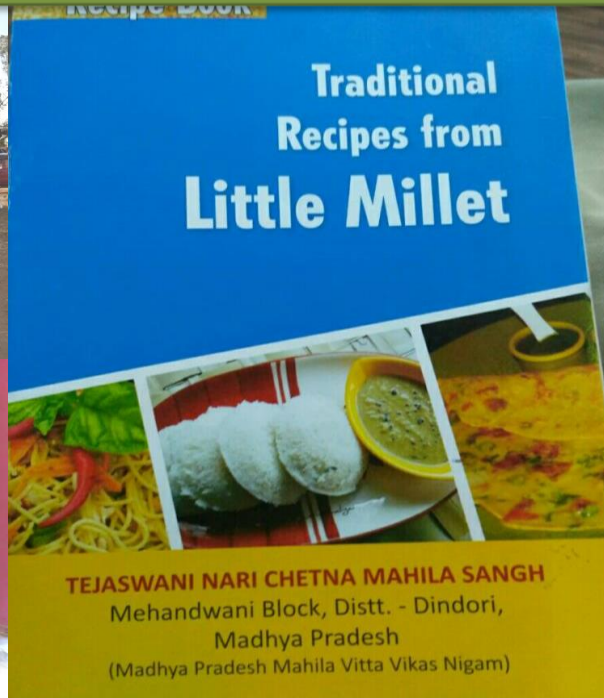


# Kaladirgha (tribal products outlet) at Mandla

- Kodo millet rice are sold here and this is the product of Kanha Krish Vanopaj Producer Company (Kanha KVPC) under National Rural Livelihood Mission (NRLM) programme
- MRP of Kodo rice is Rs. 85/kg
- Millets are consumed by their preferences only not specifically during fasting time in these regions
- Kodo Millet is marketed in Mandla by Kanha KVPC, Mandla



# Processing units of Tejeshwani SHGs is located in Mehandwani of Dindori district



ऋणाक एकी

दिनांक/ 08/04/2017

क्र.	विवरण	तादात
1	(कट्या माल) कीटो कुटकी	18-50A 9-53 वि.
2	(दुणई यीणय) काटो कुटकी	4-40 वि. 1-24 वि.
3	पेकिंग की गई काटो कुटकी	1-69 वि. 1-20 वि.
4	पेकिंग करने हेतु काटो कुटकी	1-69 वि. 70 वि.

# भारती कुटकी चावल



भारती कुटकी चावल

बनाने की विधि :

एक कप कुटकी चावल  
दो कप पानी

आवश्यकतानुसार कुटकी चावल पानी में पकाये और सब्जी व दाल के साथ परोसे।

Method of Cooking :

1 Cup Little Millet (Kutki)  
2 Cups Water

Cook Little Millet in water just as you would cook rice. Serve with vegetable, dal etc.

जैविक खेती के पर्यावरणीय एवं स्वास्थ्य लाभ सर्व विदित था सिद्ध है। कुटकी चावल का उत्पादन जैविक कृषि के माध्यम से किया गया है, जो किसी कृत्रिम खाद, कीटनाशक एवं जैविक घटक के बिना प्रयोग के उपजाऊ है। जैविक विधि से उत्पादित कुटकी चावल स्वास्थ्यवर्धक है तथा पोषक तत्वों से भरपूर है। इसके सेवन से अनेक बीमारियों से बचा जा सकता है एवं शरीर में शारीरिक ऊर्जा का स्तर बना रहता है। कुटकी चावल कई प्रकार के प्रोटीन व खनिजों से भरपूर होता है। इससे टाइप-2 डायबटीज, गैल स्टोन व कैंसर होने की संभावना कम होती है, साथ ही कॉलेस्ट्रॉल स्तर भी कम होता है।

यह उत्पाद डिण्डोरी जिले के मेंहदवानी ब्लॉक की महिला स्वासहायता समूहों द्वारा निर्मित है।

Kutki rice is produced organically, without the use of any synthetic fertilisers, pesticides, herbicides or artificial ingredients. Kutki rice is healthy and rich in nutritional value. Consumption of Kutki rice increases the energy level. It is rich in Fiber, Protein, Minerals. Kutki Millet has heart protective properties, minimizes risk of type 2 Diabetes, Gall Stones and Cancer. It also reduces cholesterol level.

Kutki rice relies on Organic water, preserves wildlife and provides livelihood options to Self-help Group (SHG's) in Mehandwani Block, Dindori District.

महिलाओं द्वारा निर्मित  
स्वाद और स्वास्थ्य से भरपूर

Net Weight  
200g

NEW WEIGHT 200 g  
BATCH NO.  
MFG. DATE  
MRP ₹

BEST BEFORE 1 YEAR  
निर्माण तिथि के तीन माह के अंदर उपयोग करें

CAUTION : SHOULD NOT BE CONSUMED AFTER EXPIRY  
चेतावनी : टी गई तिथि के समाप्त होने के पश्चात् इसका सेवन न करें

भारती कुटकी चावल

महिलाओं द्वारा निर्मित  
स्वाद और स्वास्थ्य से भरपूर

सामग्री : कुटकी चावल

NUTRITIONAL INFORMATION (PER 100g)

PARTICULARS	VALUE
Protein	7.70 g
Carbohydrates	67.0 g
Fat	4.70 g
Crude Fiber	7.60 g
Calcium	17.00 mg
Phosphorus	222.00 mg
Iron	6.00 g

IMPORTANT : STORE IN CLEAN, COOL DRY PLACE, FREE FROM MOISTURE, HUMIDITY, INSETS, PESTS, STRONG ODOURS, SUNLIGHT & DUST

FSSAI LICENSE No. : 21416370000006

For Complaint/suggestions in Relation to Product, please email tesjaswani.madhyapradesh@gmail.com

भारती

MANUFACTURED BY :  
Tejaswani Nari Chetna Mahila Sangh,  
Mehandwani Block, Distt. - Dindori,  
Madhya Pradesh



MARKETED BY :  
Madhya Pradesh Mahila Vitta Vikas Nigam  
IV Floor, Payawas Bhawan, Bhopal M.P.

Picture on the pack does not represent the product inside.  
Food grade plastic inside conforms to IS

For more delicious Kodo rice Indian recipes

Tejeshwani Kutki Product



- Ekgaon is providing technical support for FPO members in Mandla and Dindori districts (Kanha KVPC and Joint FPC and so on)
- Ekgaon is also providing information of package of practices for millet and paddy through voice SMS to each member farmers of FPCs
- Information included the line showing, seed treatment, pest control variety details, fertilizer usage and marketing of produces
- In case of marketing; linking FPCs with bulk traders in urban area, value addition and packaging and marketing
- 50 % of net profit will go to directly farmers and remaining 50 % of net profit will be shared with stakeholders like FPC, ekgaon and so on
- Ekgaon generated barcode for all value added products and the link of barcode contains details of particular farmers who is real producer
- Suggestions of increasing millet cultivation; new high yielding varieties to be developed, market opportunities to be created for millets, suitable machineries, and market linkages
- About 13 FPCs in Mandla and 10 FPCs in Dindori districts are established by various NGOs
- Ekgaom technology has been providing technical supports to Kanha KVPC
- Ajeevika is a women group is located in Mandla and this group is currently supporting for packaging of Kanha products

# Millet: Public Institutions, NGOs

- local communities lost diversity in Kodo and Kutki and other millets.
- National food Security Mission (NFSM) and Rashtriya Krishi Vikas Yojana (RKVY) scheme provides millet seeds and inputs on subsidy
- Initiatives of the Madyapradesh government procuring millets for Noon Meal schemes/ Integrated Child Development Schemes/ Public distributed systems or even by the FCI (Food Corporation of India)
- Establishment of processing mill at Mandla or Dindori district further increase production, consumption and local employment for tribal youth
- NGOs; CARDS, PRADHAN, NEWSID, BAIF, Ecgaoun



Joint director of Agriculture,  
Jabalpur



**Mr. Ramnath Parmar, secretary of  
LAMP society procurement centre in  
Chhanta village of Dindori district**

# AICRIP Millets (ICAR) Dindori



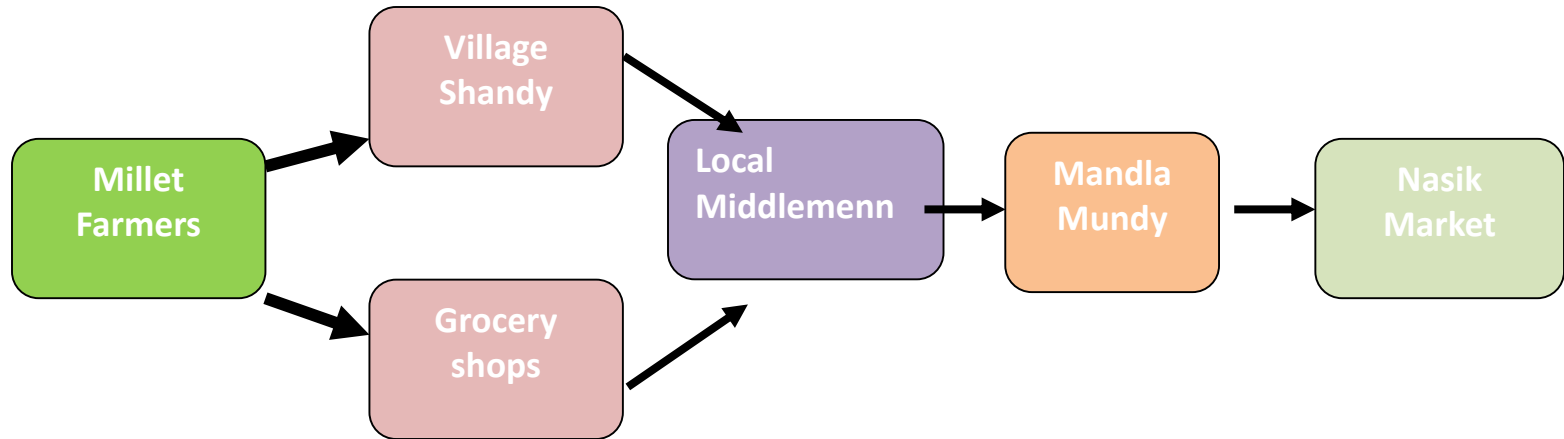
- new varieties:
- in Kodo JK-439 (90-95 days, yield-20-25 qtl/ha),
- Kodo DPS9-1 (90-95 days, yield-22-28 qtl/ha)
- Kutki- DLM-322 (65 days, yield-12-15 qtl/ha)

# ASA NUS Initiatives

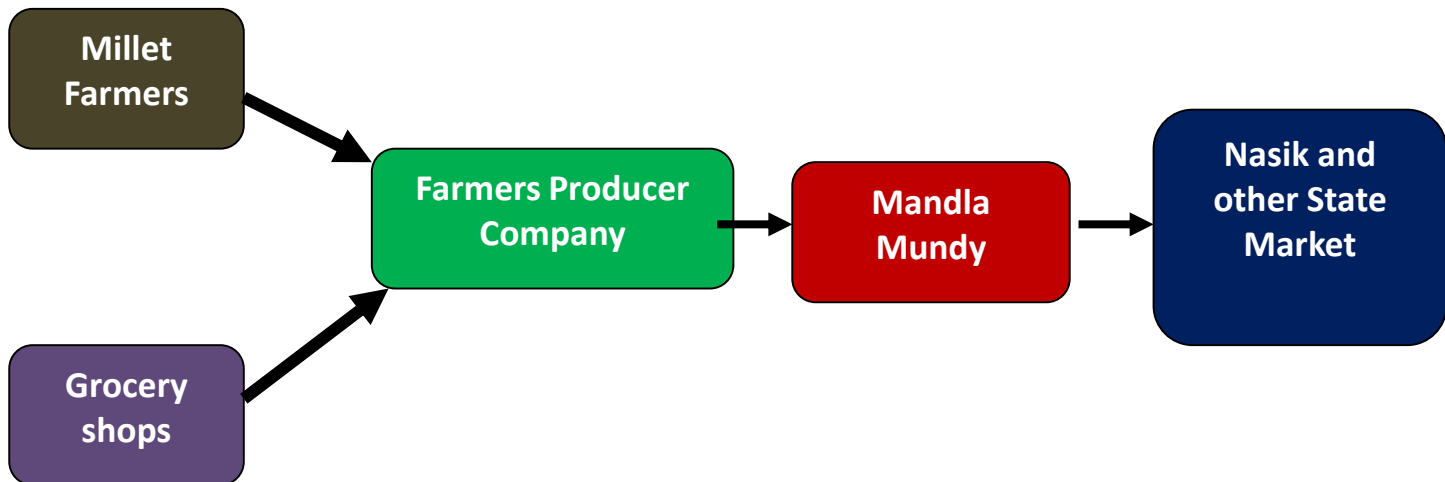
- Marketing initiatives through FPOs
- Promotion of inputs supply
- Organising farmers field day
- Participatory Varietal selection
- Participation in food fair
- Seed value chain



## Conventional supply chain



## ASA initiated Value Chain





# ASA's Farmers Producer Companies

Name of FPO	Started	Total members	Male	Female	Leadership (BoD)		No. of Village covered	Targeted crops
					Male	Female		
<i>Maheshmati Tribal Farmer Producer Company</i>	January 2012	482	5	477	2	3	26 villages	Paddy, Wheat, Maize, Millets, Lentil, Pea, Gram, Vegetables
<i>Vindavarshi ni Sahapura Tribal Farmer Producer Company</i>	April 2013	500	0	500	0	5	21 villages	Paddy, Wheat, Maize, Millets, Lentil, Pea, Gram, Vegetables
<i>Mandla Tribal Farmers Producer Company</i>	January 2012	1054	3	1051	2	3	29 villages	Paddy, Wheat, Maize, Lentil, Pea, Gram, Vegetables
<i>Dindori Tribal Farmer Producer Company</i>	April 2013	921	3	918	2	3	21 villages	Paddy, Wheat, Maize, Lentil, Pea, Gram, Vegetables

# Transaction of raw materials of targeted crop

Name of FPCs	2016		2015		2014	
	Volume in Quintal	Value in Rs.	Volume in Quintal	Value in Rs	Volume	Value
<b>Maheshmati (from members)</b>						
Kodo Millet	-	-	600	5,00,000	-	-
Little Millet	-	-	400	9,00,000	-	-
<b>Vrindavasini (from members)</b>						
Kodo Millet	200	3,00,000	-	-	-	-
Little Millet	300	7,20,000	-	-	-	-
<b>Vindhavasini (from Non-members)</b>						
Kodo Millet	50	75,000	-	-	-	-
Little Millet	100	2,40,000	-	-	-	-

# Inputs sales by FPCs

Name of FPCs	2016		2015		2014	
	Volume	Value	Volume	Value	Volume	Value
<b>Maheshmati</b>						
Fertilizer	2900 bags	Rs. 380/bag	2500 bags	Rs.380/b ag	1700 bags	Rs. 380/bag
Kodo Millet seeds	200 quintal	Rs.3000/ quintal	30 quintal	Rs.4500/ quintal	-	-
Little Millet seeds	20 quintal	Rs.3400/ quintal	25 quintal		-	-
<b>Vrindavasini</b>						
Fertilizer	10 quintal	Free of cost	-	-	-	-
Paddy seeds	13 quintal	Rs.30/kg	-	-	-	-
Wheat seeds	4.8 quintal	Rs.30/kg	-	-	-	-

# Characteristics of Trading Relationship

Actors	Farm Gate Price in INR/ Quintal		Remarks (Common for Kodo and Kutki)
	Kodo	Kutki	
Farmers	1200	1700	Selling for cash and kind
Kirana Shop	1500	2500	Make the payment after checking the quality
Mundy	1600	2700	Make the payment after checking the quality, Farm women and men directly sells millet
Nasik Processing Units	2000	3200	Traders deals with mundy at Mandla and Dindori over telephone and negotiate for price and procure by trucks
ASA – FPC	1200-1500	2300-2700	FPC members involve in procurement in farmers location and Kirana shop, grade it, payment made on the spot and sells to Mandla (2015-16)

# Maheshmathi Tribal Farmers Producer Company

- Mahesh mati FPO has purchased land for warehouse and building constructed by ASA with the support of MKSP scheme, Bioersivity and other financial supports in year of 2014-15 (Rs. 17 lakhs for building and Rs. 7 lakhs for machine)
- The infrastructure includes 500 MT storage capacities and one grader
- Land was purchased using share capital amount at Rs. 1 lakh / acre



# Mandla tribal farmers Producer Company

- This FPC has one storage godown cum grading unit in this village
- FPC members are grading various grains and seeds of millets (Kodo millet and little millet), paddy and wheat
- FPC has established village level procurement centres in many places.
- The farmers leave seeds and grains at procurement centres
- FPC members weigh the grains/seeds and transport to FPC processing/grading centre for store/sales



## Financial Assets at the Enterprise (Loan & Grants)

Particulars	Amount in Rs.	Source
<b>Maheshmati</b>		
Loan	14,00,000	Ananya Micro finance company
Grant	1,68,000	Small Famers Agribusiness Consortium
<b>Vrindavasini</b>		
Loan	-	
Grant	3,24,000	Small Famers Agribusiness Consortium

## Financial Assets at the Enterprise (Capital flow)

Particulars	Maheshmati	Vrindavasini
Annual turnover	18,00,000	13,00,000
Working capital	2,00,000	1,50,000
Account payable	14,00,000	-
Profit	1,20,000	-

# Vrindhavashi Farmer Producer Company



# Product of Mahesmathi Farmer Producer Company





# Summary

- **5 Cell analysis** to understand diversity and linking with **custodian farmers**
- Participatory Varietal Selection, Quality seed Production using released new varieties and the farmers' varieties
- Training and capacity building on **women empowerment (Decision Making)** at FPC level
- scope for **building up network** of FPCs which could include a closer and direct relationship with the research institute like AICRIPS, creating network of women entrepreneurs, seed exchange networks
- **Small and Medium type Processing facilities** at least at cluster level for more domestic consumption (Skill India Training for Youth)
- focus could be on **new product development** – local processing and value addition (with the focus on Nutrition)
- **Popularization and expanding** the local market and consumer base
- **branding and labeling** can go a long way in ensuring better returns to the farmers
- **Scope to** linking financial institutions, retailer, wholesalers, regulated markets, APMC, value added product companies.

- Thanks