



### INTRODUCTION



- In India, women of the forest fringe villages are the primary users of the forest resources and are majorly involved in the collection and sale of NTFPs.
- NTFPs offer great promise for increasing income for the poor mountain women of India.
- Women of Uttarakhand collect forest products like fuelwood, fodder grass, bamboo, Tejpatta (*Cinnamomum tamala*), Pine resin and medicinal plants like Satavar (*Asparagus racemosus*), Chirayta (*Swertia chirayta*), Reetha (*Sapindus mukorossi*) and other edible fruits, flowers, leaves and vegetables etc depending on the area, type and density of local forest.
- The present study aims to assess the current status of NTFP collection by women collectors of Dhanaulti area in Uttarakhand, India.

### **OBJECTIVES OF THE STUDY**



- The primary objective of the study is to collect data on Socio-economic condition of women villagers, quantity and frequency of NTFP collection, methods of storage and processing.
- PI also analysed the constraints faced by the mountain women in collection, transportation and processing of forest products.
- The greater aim of the project is awareness generation and capacity building of mountain women on commercial collection, grading, processing and marketing of forest products. This will help the poor mountain women to have a source of better livelihood and alternative income generation.







### **STUDY AREA**

- Dhanaulti is a *Tehsil* of Tehri Garhwal district, Uttarakhand, India. The study area is located between 30°24' to 30°28' N and 78°10' to 78°18' E.
- Located at an altitude of 2286 metres amsl forming the southern slopes of the Himalayas.
- Study conducted in four villages Batwaldhar, Lambidhar, Chhandukhel and Goth (hamlet close to Dhanaulti).
- The surrounding forest is Reserve Forests under Mussourie Forest Division.
- The major tree species found in the area are Deodar (Cedrus deodhara), Oak (Quercus spp.), Rhododendron (Rhododendron arboreum), Walnut (Juglans regia), Chestnut (Aesculus indica) etc.

### **METHODOLOGY**



### **Secondary Data**

- Maps, reports, publications, research papers
- Uttarakhand Forest
   Department, District
   Horticulture Office –
   New Tehri,
   Administrative Block
   Office Thatyur and
   Tehsil Office Dhanaulti

### **Primary Data**

- Focused Group Discussions with women members
- o Participatory Rural Appraisal (PRA) exercises with focus on Village Resource Mapping, Seasonal Calendar and Problem Ranking Methods
- Household Questionnaire
   Survey of 107 women
   members of four villages



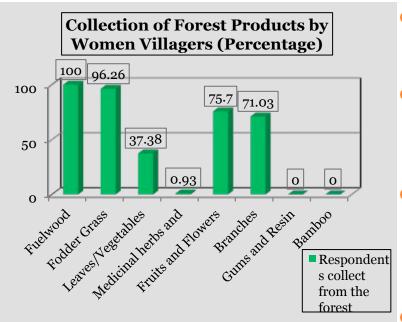
#### SOCIO-ECONOMIC CONDITION

- Members belong to OBC (23.9%) and GC (62.8%) with very few under SC (14%) category.
- 76.6% of the respondents are married.
- 74.7% of the respondents are illiterate followed by 12.1% who can only sign.
- Primary occupation is agriculture with animal husbandry whereas ecotourism and private services are secondary sources of income.
- o 69.15% are small farmers having landholding of 1-2 ha.
- Annual household income ranges from INR 0.10 million 0.30 million (US\$ 1505 4514).
- Male members of the household migrate to nearby cities leaving women members to take charge of agriculture in addition to household activities.
- Among the respondents 42.9% have *Pucca* houses with toilets
- 57.94% of the respondents are having LPG connections but still fuelwood is the primary source of energy.

#### **COLLECTION OF FOREST PRODUCES**



### STUDY FINDINGS



- 80.37 % women spent 2-4 hours daily for collection of forest products for 10 months of the year.
- o 100% of the respondents collect fuelwood and 96.26 percent of respondents collect fodder grass for livestock.
- 37.38% percent of respondents collect seasonal leaves and vegetables like *Lengra* (a fern belonging to *Diplazium* species), Hisar (*Rubus duthieanus*) etc.
- 75.7 % collect fruits and flowers Kafal (Myrica esculenta), Rhododendron (Buransh in local language), Kingod (Berberis chitria) from the forest for household consumption.
- Only 0.93 % respondent collects medicinal plants like Chirayta (Swertia chirayita), Satavar (Asparagus recemosus) etc as presently no marketing opportunity exist.
- 71.03 % of respondents collect branches or small poles of wood once a year.
- The survey reveals women respondents collect NTFPs entirely for household purpose and none of them sell any NTFP.



SI No.	Name of Forest Produce	Respondents collect from the forest (Percentage)	Frequency of Collection (Percentage of Respondents)				
			<b>5</b> . "	Once in	2-3 months	Once in a	
			Daily	two days	in a year	year	
1	Fuelwood	100	30.84	68.22			
	Fodder						
2	Grass	96.26	93.45	4.67	-	-	
	Leaves/				9.34	27.01	
3	Vegetables	37.38			(25.64)#	(74.35)	
	Medicinal						
	herbs and						
4	shrubs	0.93	-	-			
	Fruits and					71.96	
5	Flowers	75.7	-	-	3.73 (4.93)	(95.06)	
						68.22	
6	Branches	71.03	-	-	0.93 (1.35)	(98.64)	
	Gums and						
7	Resin	0	-	-	-	-	
8	Ramboo	0	_				
# Figure in bracket indicates Percentage of respondents collecting that particular forest product							

### FREQUENCY OF COLLECTION

- o 68.22 %
  respondents
  collect fuelwood
  once in two days,
  while 30.84
  respondents
  collect it daily.
- 93.45% collect fodder grass daily.
- o 27.01 % collect leaves and vegetables only once in a year.
- 71.96 % of women respondents collect fruits and flowers once in a year.
- o 68.22 % total respondents collect branches from forest only once in a year.

# **Quantity of NTFP Collected**

W.

# STUDY FINDINGS

- 70.09 % of respondents collect 400-600 kgs of fuelwood in a year, while 17.75 percent respondents collect more than 600 kg of fuelwood in a year.
- The quantity of fodder grass collected from forest in a year ranges from 200 kg to 1000 kg.
- 50.46 % collect 400-600 kgs of fodder grass in a year.
- Only 3.73 % collect more than 600 kg fodder grass in a year.

SI No.	Name of Forest Produce	Quantity Collected (Percentage of Respondents)					
		<400 kg	400-600 kg	>600 kg			
1	Fuelwood	12.14	70.09	17.75			
2	Fodder Grass	45.79	50.46	3.73			



### **Quantity of NTFP Collected**

- Quantity of leaves and vegetables collected ranges from 3-20 kg per year per women collector.
- 19.62 % of total respondents collect more than 10 kg of leaves and vegetables while 14.01 % of total respondents collect 5-10 kg of leaves and vegetables in a year.
- Quantity of Fruits and Flowers collected from forest varies widely from 3 100 kg per year per woman collector.
- o 36.44 % respondents collect 20-50 kg of fruits and flowers per year whereas 25.23 % respondents collect about 50-80 kg.
- Quantity of branches collected varies from 10-120 kg per year per women collector.
- 35.51 % of total respondents collect more than 80 kg of branches in a year, whereas 12.14% collect 20-50kg for repairing houses and agri-equipments.

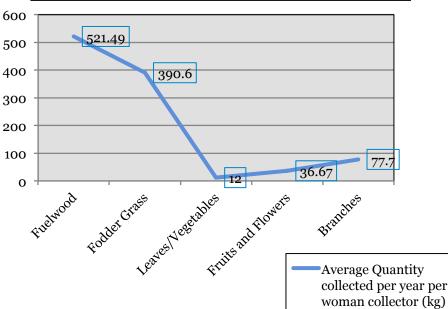
## Average Quantity of NTFPs Collected

- Fuelwood has the highest demand with 521.49 kg per year per woman collector.
- Average quantity of fodder grass collected is 390.6 kg.
- The average quantity of leaves and vegetables collected is 12 kg and fruits and flowers collected is 36.67 kg per year which is presently used entirely for household purpose.
- Branches are also high in demand and average quantity collected is as high as 77.7 kg per woman collector.

### STUDY FINDINGS









### **Constraints Faced by Women Collectors**

- Majority of respondents, 43.92 % lack proper knowledge on methods of collection of forest products and training in this regard will be helpful.
- 18.69 % of women respondents feel problem in walking and climbing on hills regularly mainly due to old age.
- 14.01 % respondents feel collecting of NTFPs is tedious and time consuming process.
- 9.34 % respondents expressed fear of attack of wild animals mostly leopard and bear.
- The same percentage of respondents mentioned about the fear of breaking Forest Department rules.
- 7.47 % of the respondents face problem due to extremities of weather.



### **Storage and Processing of Forest Products**

- All the women collectors transport forest products to their houses by headloads.
- Though it is recorded 20.56 % of women collectors do not store forest produces but observation of PI is contradictory and they store fuelwood in houses for extreme weathers.
- 53.27 % women keep the forest produces both in the open compound and also in a close place. The place of storage is mainly in-house on a wooden platform near the ceiling of kitchen or in the room adjacent to kitchen and sometimes in cattle shed.
- After harvesting of NTFPs, 57.94% women collectors perform primary processing like sorting and sun-drying.
- It is recorded during the study that awareness on quality control of forest products for storage and processing is lacking.



### **WAY FORWARD**

- The leaves, vegetables, fruits and flowers collected like *Kafal*, Rhododendron flowers etc. can be processed and value added to make them commercially viable.
- The women collectors have expressed their eagerness to take part in training for processing of forest products and medicinal plants.
- PI is presently conducting a three year project in Dhanaulti which aims for capacity building of women members on processing, packaging, value addition of NTFP based products and also creating proper market linkages for sustainable income generation of mountain women.



### THANK YOU

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HANKS TO WOMEN OF DHANAULTI,
DST-WOSB FELLOWSHIP
P
ROGRAMME, GOVT. OF INDIA AND
SNRMCD MEMBERS