

MINOR

MFP

NON-TIMBER FOREST PRODUCE (NTFP): ITS COLLECTION, USE, DISTRIBUTION

IN SIRSI & HONNAVAR ~~TALUKS~~, U.K. DISTRICT, KARNATAKA

FOREST DIVISIONS, CANARA CIRCLE, KARNATAKA

A REPORT

BACKGROUND

Uttara Kannada district has three ~~region~~ major geographic and ecological zones-

- i) Coastal strip along the west
- ii) Hilly area (ghats) in the middle
- iii) plains towards the East.

Evergreen and deciduous forest tree species common to the western ghats of India are also found here. Numerous plant products are collected by the locals for a wide range of uses. <sup>MFP</sup> ~~NTFP~~ collection has long supported a sustainable lifestyle for the traditional communities of the district as also making an important contribution to the local economy. However, in today context <sup>xx</sup> there is also a trend towards gross misuse and over collection of these forest products without heed for their continued supply.

<sup>MFP</sup> ~~NTFP~~ includes edible products like fruits, nuts, bamboo shoots, mushrooms, vegetables and spices. It also includes plant parts that are used as medicine; in perfume<sup>ry</sup> works (like Dhoopa - Vateria indica, Suragi-Mammea longifolia, and Sandal-Santalum album); to make articles of home, and agricultural <sup>equipment</sup> ~~use~~ (Bamboo and cane); natural pesticides; organic fertilisers, and a host of other things.

This reports attempts to present a part of the array of <sup>MFP</sup> ~~NTFP~~ Collected in Sirsi and Honnavar <sup>Forest Divisions</sup> ~~Talukas~~ of Uttara Kannada district <sup>in Canara circle</sup> to look at

Type  
 Kersh  
 b+s  
 double  
 over  
 space  
 MFP  
 MFP  
 MFP  
 type  
 wide  
 margin  
 -wide  
 margin

its collection and distribution(marketing) and finally provides suggestions for a more equitable system of marketing along with a non-destructive ~~max~~ way of harvesting ~~NTED~~ MFP.

--

Note: P-2,3,4,5, and firsthalf of 6 Please refer corrections (comments) made in the rough draft.

Points to clarify

+ Page ②

I. FOOD

MFA

The ~~NFP~~ products which are used as food are listed below:

1. Halasu (Artocappus heterophyllus): Nut and fruits are being used as food. It is commonly available in the month of May, June, and July.
2. Mango (Mangifera indica): Nuts and fruits are being used as food. It is available during March, April May June, July and August.
3. Vaate (Artocarpus lakoocha): Nut is used for food. Dried slices of the nut are crushed into powder and used to sour many food items. It is available during March and April.
4. Koulikai (Carissa carandas): The nut is used especially in making pickles. Available in March and April.
5. Nelli (Embllica officinalis): Eaten raw, pickled and used to sour food items. Available in November-December.
6. Murugalu (Garcinia indica): Fruit cover is used to sour food items or made into juice. Oil extracted from the seed is also edible and medicinal. Harvested during April-May.
7. Uppage (Garcinia cambogia): Fruit cover is used as souring agent. Oil extracted from the seed is used as ghee. Available in July and August.
8. Aramadlu (Zanthoxylum ovalifolium): The nut is used in making pickles and also in several other food items. Available in April-May.
9. Jummanakayi: Nut is used as spice.
10. Honey: Three types are commonly found here, Rock Bee (Apis dorsata), Dammer bees (Apis florea), and India bee (Apis cerana indica).

- 3 -

11. Dalchinni (Cinnamomum zeylanicum): Bud and bark are used as spice. The leaves have pesticide nature.

12. Ramapatre: Flower is used as spice. (Myristica malabarica)

13. Beedi leaves (Tumbri etc)

14. Arishina (Curcuma longa)

15. Madahagalu (Momardica dioica) nut

16. Majjigehullu (Cymbopogon citratus) grass

17. Gavantlekayi nut is edible

18. Mushroom-entire plant

19. Challe (Cordia mixa) fruit

20. Wild pepper (Piper nigrum) used as spice.

Some other wild fruits are:

1. Neralu (Syzygium cumini)

2. Hulimajjige hannu

3. Bikke (Gardenia gummifera)

4. Ankole (Alangium salvifolium)

5. Atti (Ficus glomerata)

6. Nurukalu (Buchanania lanzan)

7. Ichalu (Phoenix sylvestris)

8. Paragi or Karemullehannu (~~Ziziphus~~ Ziziphus oenoplia)

9. Bilemullehannu (Ziziphus rugosa)

10. Ranjalu

11. Sampige (Michelia champaka)

12. Halige

13. Dasavala

14. Wild cashew (Semicarpus anacardium)

Other products like Flavarige, Bilvapatre, Sambarsoppu, Panjargaude, Neem, Kesa, Ondelaga, Kannekudi, Genasu, Some beans, Kalale (bamboo shoot), serve as vegetable.

Used for cattle feed: Green leaves from Honne, Halavaru, Shivanne, (Gmelina arborea), Baine, Dadasalu, Kanagalu, Bilsidi, Bilkambi, Grass and fodder, several climbers.

Page 3  
- 4 -

## II. MEDICINAL HERBS

Hundreds of plants are being used as medicine. A few important ones are listed here.

1. Vayuvilanga (Embelia ribes) used to treat gas trouble and also to treat trouble from worms.
2. Taari (Terminalia bellerica): Nut mainly used in making triphala.
3. Nelli (Emblica officinalis): Nut mainly used in making triphala churna. Green leaves are used as pesticide.
4. Kaare:
5. Kasarka (Strychnos nux-vomica): The leaves and fruits are used as insecticide.
6. Rammanasoppu or Mukkadalea (Kasiosiphon eriocephalus): Diseased plants like paddy can be cured with a decoction of these leaves with Kasarka (Strychnos nux-vomica).
7. Shatavari: Medicinal Herb.
8. Anale (Terminalia chebula): Used in triphala and also to treat venan in foot fingers in rainy season.
9. Kodasa (Holarrhena antidysenterica): Medicine for diarrhoea.
10. Uppage (Garcinia cambogia)
11. Murugalu (Garcinia indica): Fruit cover is used in treating
12. Neem (Bevu (Azadirachta indica)): Used as medicine and pesticide
13. Lakki soppu (Vitex negundo): Pesticide

P.T.O.

5-5

### III. OIL/NUTS

1. Uppage (*Garcinia cambogia*): Oil extracted from the seed is used as ghee.
2. Murugalu (*Garcinia indica*): Oil extracted from the seed is edible and has medicinal property used in treating cracks in foot, fingers and face.
3. Andiseed: Oil extracted is used for lighting purpose. Generally some backward communities living in remote areas used this oil to light lamps.
4. Soapnut (*Sapindus laurifolius*): Dried nut is crushed to a powder and efficiently used for washing clothes as well as the body.
5. Seege (*Acacia concinna*): Powder of dried nuts is used to wash clothes, body and hair similar to soapnut. Often this ~~powd~~ powder is mixed with soapnut powder to get better results.
6. Kaare
7. Honge: May be used for washing purposes.

Several other nuts are being used in several respects like Taari, Anale, Nelli, Vaate etc., which are already mentioned in NTFP's which are used as food.

### IV. CANE

Canes are generally used in making several agricultural implements, furniture, as binding thread, and to make baskets and mats & to carry agricultural produce and fertiliser. Different species available in this region are Naghabetta (*Calamus rotang*), Handi betta (*Calamus thwaitesii*), Haalubetta (*Calamus pseudo-tenuis*)

V. BAMBOO:

Bamboo are used to make some agricultural implements to make mats and also as poles.

Species that are commonly found here are Vaatebidiru (Ochlandra rheedi), Shame (Oxytenanthera monostigma), Male bamboo (Dendracalamus strictus) Female bamboo (Bambusa arundinacea), Yellow bamboo (Bambusa vulgaris).

VI. FIBRE

Several plants are being used to take fibre. These are

1. Kouri (2) Kavalu (Careya arborea), (3) Baine (Caryota urens)
4. Dasavala (5) Karki (6) Basari (7) Bilva (8) Kathale (Agave americana)

<sup>MFP</sup>  
HARVESTING OF ~~NTFP~~ (Rate according to 1995-96)

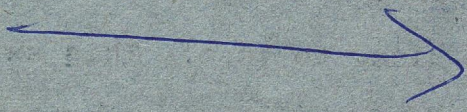
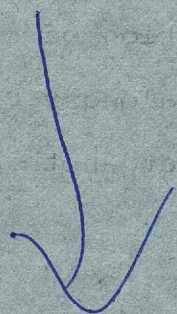
Spice products like Ramapatre, Dalchinni and wild pepper are harvested during January, February and March. The households who live nearby the forest collected 10-15kgs each of this annually. On an average a collects about one to two kg of Ramapatre per day.

Flowers (Arils around nut) from the tree Ramapatre (Myristica malabarica) taken out and dried for three-four days in sun light. The rate is upto Rs. 75-80/-per kg. Matured tree grows upto a height of 65 to 100 ft. So people find it difficult to climb the tree and collect the flower. So they easily cut down the trees to get the product. To give a particular example- The forest called Kambikanu lying between Kalase, Gonsar and Kakkalli villages in Sirsi taluka consisted of plenty of thi Myristica malabarica in 1980th decade. But as the price of its flower increased people from these three villages started to cut down big trees. Today this forest has very very few plants of this variety.

MARKETING

All the ~~NTFP~~<sup>MFP</sup> collected are sold locally. There is a disparity in what the collector~~xxx~~ gets paid and the rate at which the product gets sold in the market. Local merchants, sub-agents and people who get the tenders to collect the ~~NTFP~~<sup>MFP</sup> all play their role in *ensuring* that there is no <sup>s</sup>table base for the prices ~~by~~ of these products. Villagers and tribals often<sup>n</sup> take advance to collect ~~NTFP~~<sup>MFP</sup> from the local sub-agents and thus are forced to sell back to the latter at the lowest prices. Lack of transportation to the ~~city~~<sup>town</sup> and the absence of a co-operative are also factors affecting effective marketing of ~~NTFP~~<sup>MFP</sup>.

..6



D-T-O.

RECOMMENDATIONS

MFP

Since NTFP collection is an important, sustainable source of livelihood for the local people (some households earn Rs. ~~10~~ 20,000 annually from it - more than what they do by agriculture), it is essential to ensure that its collection, use and distribution are done in the best way possible.

1) Collectors of each area should be identified. They should strictly be prevented from lopping off big branches or the whole trees in their greed and haste. Sub-agents who do not care about the health of the forest as a whole, and who also form a portion of the ~~NTFP~~ MFP collectors should perhaps be totally banned from collecting activity.

MFP  
2) Over exploitation of NTFP collectors and a fluctuating price base must be controlled. The setting up of a cooperative <sup>of collectors</sup> will help with this and ensure proper collection and distribution of forest products. The cooperative however should run along very strict lines and should not be allowed to degenerate into yet another money making racket.

MFP  
3) Awareness about the importance of harvesting NTFP in an eco-friendly way should be imparted to collectors. This could be at the village level where there is a strict <sup>e</sup> emphasis on how to collect and why one should not <sup>chop</sup> ~~prop~~ down whole trees. X Regular, ~~septematic~~ systematic awareness classes or programmes, should be set up.

MFP  
4) Farmers who have encroached forest land as 'Soppina Betta' should be encouraged to plant tree species which have NTFP value. This value should be made clear to them. This ~~is~~ would result in afforestation and the planting of indigenous species instead of acacia or eucalyptus. The very concept of tree planting should also be

--

*totally found*

encouraged as this *is* *L* to be lacking.

5) The Forest Department must play an active role in actually conserving whatever forests are left so the <sup>at MFP</sup> ~~NTPP~~ species are also conserved and an important socio-economic activity of locals maintained. This would mean that the indiscriminate planting of Acacia auriculiformis, Eucalyptus and other exotic species unsuited to the local ecology should be completely stopped. This is a ~~very~~ very important way in supporting continued <sup>MFP</sup> ~~NTPP~~ production and use.

6) An applied research programme should be initiated to look into the dynamics of <sup>NTPP</sup> ~~NTPP~~ collection for <sup>Uttara</sup> ~~Uttara~~ Kannada district <sup>and Canara circle</sup>. This could be handled by a competent NGO in collaboration with the Forest Department, relevant research institutions and individuals. The data collected could be used meaningfully to look at emerging trends in the whole <sup>NTPP</sup> ~~NTPP~~ issue and then <sup>in</sup> take action on ~~its~~ <sup>this</sup>.



*Widest  
wide margin*

TABLE 2

MFP PRODUCTION (in tonnes) (1985-86 to 1993-94)

HONNAVAR FOREST DIVISION

PRODUCT (tonnes)	1985-86	1986-87	1987-88	1988-89	1989-90	1990-91	1991-92	1992-93	1993-94
Canes (in number)	--	209529	11495	288848	256177	219616	300500	612711	375000
Honey	1.00	1.00	0.90	0.80	0.800	--	--	0.1	0.175
Wax	0.52	0.500	0.50	0.80	0.800	--	--	--	--
Sheegekai	87.409	0.250	0.5	0.30	0.800	1.00	2.50	0.802	8.00
Hulgal	--	--	--	4.50	--	--	--	--	--
Beedi leaves	--	--	--	--	--	--	--	--	--
Harda	--	--	--	--	0.800	--	--	--	--
Antwalkai	3.00	1.00	--	3.00	2.5	1.5	2.5	0.95	0.50
Cashew	190.00	--	6.5	208.00	2.11	20.00	--	15.5	12.50
Uppagi	2.30	2.00	--	2.5	3.5	13.00	5	6.00	9.50
Rampatre	2.3	0.250	0.50	1.00	--	10.00	--	--	2.5
Dalchinni	1.58	1.25	1.25	0.80	17.617	1.00	1.25	--	--
Tripal	2.30	2.00	2.00	2.5	--	--	--	--	--
Pepper (wild)									
Amsola									
<del>Kadu Arisina</del>									
<del>Murugal</del>									
Fodder									
Oil seeds		2.00	21.00	20.00			3.00		
Andle		--	130.00						
Dhoopa		5.00	2.100						
<del>Spices</del>									
<del>Fruits</del>									
<del>Eucalyptus oil</del>									
<del>Rosha oil</del>									
Gum		1.25	1.00						

*Source: Annual Reports, Canara Circle, SSSI*

Separate page  
w/ sheet wide margin

TABLE 1

MFP PRODUCTION (in tonnes) (1985-1986 to 1993-1994)

SIRSI FOREST DIVISION

PRODUCT (tonnes)	1985-86	1986-87	1987-88	1988-89	1989-90	1990-91	1991-92	1992-93	1993-94
Canes (in numbers)	--	10310	3648	--	--	--	--	--	--
Honey	0.370	5.00	0.50	0.50	0.60	--	0.25	0.2	0.277
Wax	0.070	0.500	0.10	--	0.20	--	0.20	--	--
Sheegakai	3.450	2.50	2.00	1.50	2.50	3.650	16.00	--	35.00
Hulgal	--	--	--	--	--	--	--	--	--
Beedi leaves	1.298	1.500	1.250	0.50	0.70	64.350	42.00	20.00	47.00
Harda	2.850	--	--	--	--	--	--	--	--
Antwalkai	3.485	2.50	0.50	0.50	0.75	--	--	--	--
Cashew	0.422	0.500	--	80.00	0.800	--	45.00	14.00	21.00
Uppagi	78.350	45.00	--	45.00	68.70	189.360	15.00	140.00	147.00
Rampatre	0.125	--	--	--	--	--	--	--	--
Dalchinni le ves	--	--	--	--	--	2	25	24	72.00
Tripal	--	--	--	--	--	--	--	--	--
Pepper (wild)	--	--	--	--	--	--	--	--	--
Amsola	--	--	--	--	--	--	--	--	--
Kadu Arisina	--	--	--	--	--	--	--	--	--
Murugal	--	--	--	--	--	--	--	--	--
Fodder	--	8000.00	890	--	--	--	--	--	--
Oil seeds	--	6.50	6.50	--	--	--	--	--	--
Andle	--	--	1.50	0.50	0.800	--	--	38.00	3.00
Dhoopa	--	--	0.50	--	--	--	--	--	--
Spices	--	--	--	--	--	--	--	--	--
Fruits	--	--	--	--	--	--	--	--	--
Eucalyptus oil(kg)	360	360	285	--	--	--	--	--	--
Resha oil	--	--	--	--	--	--	--	--	--

Source: Canara Annual Reports of Canara Circle, Sirsi

Dalchinni (Cinnamomum zeylanium): Also called as wild clove. Buds and leaves are taken from the tree. While harvesting this the branches are cut down, which may take 3-4 years to get sprout and yield products.

Wild pepper: This climber stretches on other trees in the forest.

Matured fruits are harvested from the climber. Some times people pull the climber which are spread on bigger trees.

Honey: Five types of honey are available in this area.

(Rockbee (Apis dorsata) (2) Indian bee (Apis cerana indica)

3) Dammer bee (Apis florea) (4) Kolujenu (5) Hotterumma.

Rockbee (Apis dorsata) is usually harvested in the month of June.

The honey matures as the flowers of trees like Henneralu, Matti

(Terminalia alata), Neralu (Syzygium cumini), Uppage (Garcinia cambogia)

start dying. Nests of the honey bee colony become big and the tip of the honey hive gets thin. The bottom of the nest also becomes thick.

Some households collect 40-50kgs of honey in a year. Indian bee honey is harvested during the months of May to September, where as Dammer bee honey is usually harvested before it gets matured the younger bee

will not matured and they die soon. Some people harvest the honey

to eat this younger bees, which results in the declination in the

population of bees. Honey hunters use fire and smoke to chase the

beeswhile harvesting time. The rough use during harvesting also

effects the honey bee colony. Exploitation of wood is the another

cause. Because of over population more and more forests are being

converted into agricultural land; for instance in the area Halasinkoppa

(in Mensi village Sirsi taluk) 20 years back the number of honey bee

colonies was more than 25-30 ~~xxxxxxx~~ every year. Today people had

encroached this forest and converted it to an agricultureland after

clearfelling several big trees. As a result today there are no more

honey bee colonies existing.

Uppage (Garcinia cambogia): The fruits are available in rainy season. Fruit cover and seed are collected for sale. Because of rain, people find difficult to climb the tree to collect the product, hence people do not hesitate to cut down the branch or sometimes even trees. If they cut the branch 2-3 years continuously the tree will die out soon.

#### MARKETING

All these products are sold locally to local merchants or local sub-agents. Today what is going on is; the persons who have got tender to collect these products will decide the rate according to his own wish. He gives the permission to local sub-agents to collect NTFPs. Further they reduce the rate keeping their commission. So at the end the person who collects these product will get very less price. The price varies considerable from time to time and place to place. For example fruit cover of *Garcinia cambogia*, initially rate was just Rs. 12/- per kg (i.e., on August-September 1995) then it increased upto Rs. 60/- per kg (on November-December) collectors were paid.

Many villagers are poor persons and they take advance to collect NTFP from local sub-agents. So it is a must for them to sell the product to these sub agents. Transportation is the another problem, many villages are quite far from the city and the villagers were not able to sell the product in city market.

CONCLUSION:

Non timber forest product contribute a great part in rural economy. Some households earn 15 to 20 thousand rupees annually by selling the NTFP which is much more than the income what they get by agriculture. Today NTFP's have got high price and respectively the evil desire of human beings also increased. These forest products are no one's property and hence people wish to take it as earliest than others can. So they started to cut down the big trees which are unable to climb to get the product. Infact not all the villagers will do this, but there are some forest hunters who always do this. Local merchants of sub agents (may be from all city nearby the forest) also collect NTFP. These people want to take the product in a hurry and hence cut down the tree or pull down the climbers. Such people should restricted to enter the forest every time. There must be a strict rule in avoiding these people.

Many villagers think that these products are not our but some one else and they district it easily without knowing importance of forest. So proper method has to be taken to convert this type of people's mentality. They can be trained properly and also to realise the problems after clearfelling the forest (NTFP collector Gurunath Hegde says that some 8-10 people who always do harm to NTFP from each village has to be taken away to plain land and should be trained about the important of forest. He also opine that it is good to avoid taking some NTFP's for few years like *Garcinia cambogia*).

Making a co-operative society for NTFP not only helps to give proper profit to the villagers who have collected it but also helps in avoiding the over exploitation.

By giving constant and proper rate to the NTFP, people realise that they are our own properties and not others.

NON-TIMBER FOREST PRODUCE (NTFP) : ITS COLLECTION, USE + DISTRIBUTION

IN SIRSI & HONNAVAR ~~WALUR~~, U.K. DT. KARNATAKA

~~NTFP~~

A BRIEF REPORT

FOREST DIVISIONS

BACKGROUND: (please refer separately note of Karnataka)

The north Kanara district has three major geographic features i.e., coastal <sup>strip along</sup> ~~area~~ in the western edge, upper hilly area and <sup>(ghats) plains</sup> further eastwards ~~the plain lands~~. The area consisted of <sup>evergreen and</sup> deciduous forest with trees flora

common <sup>to</sup> in the western ghats of India. Numerous products are collected <sup>from these forests by the locals</sup> for a wide range of purposes. A lot of forest products are used as construction materials. Edible products like ~~several vegetables~~ (Mushrooms), fruit, nuts, bamboo shoots, and also spices. <sup>are harvested</sup> Green leaves from some trees and fodder serve as cattle feed. Many plants have been used as ~~herbs~~ <sup>herbs</sup>, medicines, pesticides and also as organic fertiliser.

Is this NTFP?

Different kinds of wood are used for constructing fences, timber and fuelwood. Canes and bamboos are used in making agriculture implements, baskets to carry agriculture products etc. Dhoopa (*Veteria indica*), Suragi (*Mammea longifolia*), Chandana (*Pterocarpus santalinus*), Sandal wood (*Santalum album*) are used in perfumery work, ~~where as~~ Henna (*Lawsonia inermis*) used as adornment.

Brahmi (*Centella asiatica*), Bhrangaraja (*Wedelia urticaefolia*) are used in famous Ayurvedic hair oil while Pudeena (*Mentha orvensis*) is used to extract menthol.

Some climbers like bare, huttige etc., are used to tie materials in constructing houses. Several forest products also provide raw materials to artisans.

I. FOOD

The NTF Products which are used as food are listed below:

1. Halasu (Artocarpus heterophyllus): Nut and fruits are being used as food. It is commonly available in the month of May, June and July.

2. Mango (Mangifera indica): Nuts and fruits are being used as food. It is available during March, April, May, June, July and August.

3. Vaate (Artocarpus lakoocha): Nut is used for food. Dried slices of the nut <sup>are</sup> ~~were~~ crushed into powder and used <sup>to</sup> as ~~a~~ sour ~~in~~ many food items. It is available during March and April.

4. Koulikai (Carissa carandas): The nut is used especially in making pickles. Available in March and April.

5. Nelli (Embllica officinalis): <sup>Eaten raw, pickled and</sup> Used <sup>to</sup> ~~as~~ sour ~~in~~ food items. Available in November-December.

6. Murugalu (Garcinia indica): Fruit cover is used <sup>to</sup> ~~as~~ sour ~~in~~ making <sup>items or made into juice</sup> food. Oil extracted from the seed is also edible <sup>and medicinal.</sup> Harvested during April- May.

7. Uppage (Garcinia cambogia): Fruit ~~s~~ cover is used as <sup>souring agent</sup> ~~sour~~. Oil extracted from the seed is used as ghee. Available in July and August.

8. Aramadlu (Zanthoxylum ovalifolium): The nut is used in making pickles and also in several other food items. Available in April-May.

9. Jummanakayi: Nut is used as spice.

10. Honey: Three types are commonly found here, Rock bee (Apis dorsata), Dammer bees (Apis florea), and Indian bee (Apis cerana indica).

11. Dalchinni: <sup>(Cinnamomum zeylanicum)</sup> Bud and bark ~~is being~~ <sup>are</sup> used as spice. The leaves have

pesticide nature.

12. Ramapatre: Flower is used as spice
13. Beedi leaves (Tumbri etc)
14. Arishina (<sup>Curcuma</sup>~~Cucumber~~ longa)
15. Madahagalu (Momordica dioca) Nut
16. Majjigehullu (Cymbopogon citratus) grass
17. Gavantlekayi Nut is edible
18. Mushroom: Agaricus compestric Entire plant
19. Challe (Cordia mixa): Fruit
20. Wild pepper (Peper nigrum) used as spice.

Some other wild fruits are:

1. Neralu (Syzygium cumini)
2. Hulimajjige hannu
3. Bikke (Gardenia gummifera)
4. Ankole (Alangium salvifolium)
5. Atti (Ficus glomerata)
6. Nurukalu (Buchanania lanzan)
7. Ichalu (Phoenix sylvestris)
8. Paragi or Karemullehannu (<sup>Ziziphus</sup>~~Zizipus~~ oenoplia)
9. Bilemullehannu (<sup>Ziziphus</sup>~~Zizipus~~ rugosa)
10. Panjalu
11. Sampige (Michelia champaka)
12. Halige
13. Dasavala anacardium
14. Wild cashew (Semicarpus anaredum)

Other products like Elavarige, Bilvapatre, Sambarsoppu, Panjargadde, Neem, Kesa, Ondelaga, Kannekudi, Genasu, Some beans, Kalale (Bamboo shoot), serve as vegetables.

Used for cattle feed: Green leaves from Honne, Halavaru, Shivanne (Gmelina <sup>arborea</sup> ~~ariatica~~), Baine, Dadasalu, Kanagalu, Bilsidi, Bilkambi, Grass and fodder several climbers.

II. HERBS MEDICINAL HERBS

Hundreds of plants <sup>are</sup> ~~were~~ being used as medicine, <sup>A</sup> few of ~~them~~ <sup>^</sup> important ones are listed here.

1. Vayuvilanga (Embelia ribes) used to treat gas trouble, and also to treat trouble from worms.
2. Taari (Terminalia bellerica): Nut mainly used in making triphala.
3. Nelli (Emblica officinalis): Nut mainly used in making triphala churna. Green leaves are used as pesticide.
4. Kaare.
5. Kasarka (Strychnos nux-vomica): The leaves and fruits are used as insecticide.
6. Rammanasoppu or Mukkadalea (Kasiosiphon eriocephalus): Diseased plants like paddy can be cured with a decoction of <sup>these</sup> ~~this~~ leaves with Kasarka (Strychnos nuxvomica).
7. Shatavari: Medicinal Herb.
8. Anale (Terminalia chebula): Used in ~~mainly~~ triphala and also to treat venan in foot fingers in rainy season.
9. Kodasa (Holarrhena <sup>antidysenterica</sup> ~~antidocentrica~~) Medicine for diarrhoea
10. Uppage (Garcinia cambogia)
11. Murugalu (Garcinia indica): Fruit cover is used in treating
12. Neem (Bevu) (Azadirachta ~~Azardica~~ indica): Used as medicine and pesticide
13. Lakki soppu: (Vitex negundo) <sup>n</sup> pesticide.

### III. OIL/NUTS

1. Uppage(Garcinia cambogia): Oil extracted from the seed is used as ghee.
2. Murugalu(Garcinia indica): Oil extracted from the seed is edible ~~mainly used to boil the food.~~ <sup>and</sup> It has medicinal property used in treating cracks in foot, fingers and face.
3. Andiseed: Oil extracted is used for lighting purpose. Generally some backward communities living in ~~the~~ remote areas used this oil to <sup>light</sup> glow lamps.
4. Soapnut (Sapindus laurifolius): ~~Used for washing purpose.~~ Dried nut is crushed to a powder and efficiently used for washing clothes as well as <sup>the</sup> body.
5. Seege (Acacia concinna): <sup>Powder of</sup> Dried nuts ~~powder~~ is used to wash clothes, <sup>and hair</sup> and body, <sup>often</sup> similar to soapnut. ~~Many times,~~ this powder is mixed with soapnut <sup>powder</sup> to get better results.
6. Kaare
7. Honge: ~~May be used~~ for washing purposes.

Several other nuts are being used in several respects like Taari, Anale, Nelli, Vaate etc., which are already mentioned in NTFP's which are used as food.

### IV. CANE

Canes are generally used in making several agricultural implements, <sup>furniture,</sup> as binding thread, ~~and also to tie houses (just as thread).~~ <sup>and</sup> Commonly used to make baskets and mats to carry agricultural ~~producte~~ and fertiliser. Several ~~type of furnitures~~ are also done by the cane like chairs, tables etc.

Difference species available in this region are- Naghabetta(Calamus rotang), Handi betta (Calamus thwaitesii)? Haalubetta(Calamus pseudotenuis)

V. BAMBOO

buildings  
fish traps  
others?

Bamboos are used to make some agricultural implements to make mats and also as poles.

Species that are commonly found here are- Vaatebidiru(Ochlandra rheedi), Shame (Oxytenanthera monostigma), Male bamboo(Dendrocalamus strictus), Female bamboo(Bambusa arundinacea), Yellow bamboo(Bambusa vulgaris).

VI. FIBRE

Several plants ~~were~~ <sup>are</sup> being used to take fibre. These are

1. Kouri, (2) Kavalu (Careya arborea), (3) Baine (Caryota urens)
- (4) Dasavala (5) Karki (6) Basari (7) Bilva
- (8) Kathale (Agave americana)

HARVESTING OF NTFP (Rate according to 1995-96) (Refer separate note)

Spice products like Rampatre, Dalchinni and wild pepper are harvested during January, February and March. The households who live nearby the forest collected 10-15kgs each of this annually. <sup>On an average</sup> ~~and 1-2 kgs in a~~ day ~~by a person~~ <sup>collects about one to two kg of Rampatre</sup> ~~per day~~.

does not  
falling

Flowers (<sup>Arils</sup> ~~Petals~~ around nut) from the tree Rampatre (Myristica malabarica) taken out and dried for three-four days in sunlight. The rate is upto Rs. 75 to 80/-per kg. Matured tree grows upto a height of 65 to 100ft. So people find it difficult to climb the tree and collect the flower. So they easily cut down the trees to get the product. To give a particular example: The forest called Kambikanu lying between Kalase, Gonsar and Kakkalli villages in Sirsi taluka consisted of plenty of

this *Myristica malabarica* in 1980th decade. But as the price of its flower increased people from these three villages started to cut down big trees. Today this forest has ~~to~~ very very few plants of this variety.

Dalchinni (*Cinnamomum zeylanium*): Also called as wild clove. Bud and leaves are taken from the tree. While harvesting this the branches are cut down, which may take ~~to~~ 3-4 years to get sprout and yield products.

Wild Pepper: This climber stretches on other trees in the forest. Matured fruits are harvested from the climber. Some times people pull the climber which are spread on bigger trees.

Honey: Five types of honey are available in this area.

- (1) Rockbee (*Apis dorsata*)
- (2) Indian bee (*Apis cerana indica*)
- (3) Dammerbee (*Apis florea*)
- (4) Kolujenu
- (5) Hotterumma.

Rockbee: is usually harvested in the month of June. The honey matures as the flowers of trees like Henneralu, Matti (*Terminalia alata*), Neralu (*Syzygium cumini*), Uppage (*Garcinia cambogia*), <sup>start dying.</sup> ~~becomes stale.~~

Nests of the honey bee colony become big and the tip of the honey hive gets thin. The bottom of the nest also becomes thick. Some households collected 40-50kgs of honey in a year. Indian bee <sup>honey is</sup> harvested during the months of May to September, where as Dammer bee <sup>honey is</sup> usually harvested before it gets matured the younger bee will not matured and they die soon. Some people harvest the honey to eat this younger bees, which results in the declination in the population of bees. Honey hunters use fire and smoke to chase the bees while harvesting time. The rough use during harvesting also effects the honey bee colony. Exploitation of wood is the another cause. Because of over population more and more forests are being converted into agricultural land; for instance

in the area Halasinkoppa (in Mensi village Sirsi taluka) 20 years back the number of honey bee colonies was more than 25-30 <sup>per honey tree</sup> every year. Today people had encroached this forest and converted it to an agriculture land after clearfelling several big trees. As a result today there are no more honey bee colonies existing.

Uppage (Garcinia cambogia): The fruits are available in rainy season. Fruit cover and seed are collected for sale. Because of rain, people find difficult to climb the tree to collect the product, hence people do not hesitate to cut down the branch or sometimes even trees. If they cut the branch 2-3 years continuously the tree will die out soon.

MARKETING: - pl. refer separate note

All these products are sold locally to local merchants or local sub-agents. Today what is going on is; the persons who have got tender to collect these products will decide the rate according to his own wish. He gives the permission to local sub agents to collect NTFPs. Further they reduce the rate keeping their commission. So at the end the person who collects these product will get very less price. The price varies considerable from time to time and place to place. For example fruit cover of Garcinia cambogia, initially rate was just Rs. 12/- per kg (i.e., on August-September 1995) then ~~ix~~ it increased upto Rs. 60/- per kg (on November-December). - collectors were paid.

Many villagers are poor persons and they take advance to collect NTFP from local sub-agents. So it is a must for them to sell the product to these sub agents. Transportation is the another problem, many villages are quite far from the city and the villagers were not able to sell the product in city market.

CONCLUSION:

*separate note*

Non timber forest product contribute a great part in rural economy. Some households earn 15 to 20 thousand rupees annually by selling the NTFP which is much more than the income what they get by agriculture. Today NTFP's have got high prize and respectively the evil desire of human beings also increased. These forest products are no one's property and hence people wish to take it as earliest than others can. So they started to cut down the big trees which are unable to climb, to get the product. Infact not all the villagers will do this, but there are some forest hunters who always do this. Local merchants or sub agents (may be from all city nearby the forest) also collect NTFP. These people want to take the product in a hurry and hence cut down the tree or pull down the climbers. Such people should restricted to enter the forest every time. There must be a strict rule in avoiding these people.

Many villagers think that these products are not ours but some one else and they district it easily without knowing importance of forest. So proper method has to be taken to convert this type of people's mentality. They can be trained properly and also to realise the problems after clearfelling the forest (NTFP collector Gurunath Hegde says that some 8-10 people who always do harm to NTFP from each village has to be taken away to plain land and should be trained about the important of forest. He also opine that it is good to avoid taking some NTFP's for few years like *Garcinia cambogia*).

Making a co-op society for NTFP not only helps to give proper profit to the villagers who have collected it but also helps in avoiding the over exploitation.

By giving constant and proper rate to the NTFP, people realise that they are our own properties and not others.

by- NRH

(171)  
R. Meeth  
PSK  
F21

FRAMEWORK FOR WRITING REPORT ON MFP (Minor Forest Produce)

- I. Name: Local name in Kannada and Latin name.  
Explain the produce (fruit, nut etc.)
- II. Forest Area: Explain the type of forest in which this product is available (evergreen, semi evergreen or deciduous)
  - Name the villages and the forest division and explain the present situation of forests in that region.
- III. Time: What time of the year it is available and for how many days. For how many people it provides employment
- IV. Collection: Explain the methods of collection and processing
- V. Marketing: Details of Marketing chain from village to contractor and the rates.
- VI. Use: For local or for sale
- VII. Opinion: Of Contractors; Of Collectors; Of Foresters
- VIII. Conclusion: General observation of the product and its availability, whether getting decreased, reasons and remedies (raise seedlings etc).

*ASIS*  
*CS*

*rough*  
*bts*

Background: The north Kanara district has three major geographic features i.e., coastal area in the western edge, upper hilly area and further eastwards the plain lands. The area consisted of deciduous forest with trees common in the western ghats of India. Numerous products are collected for a wide range of purposes. A lot of forest products are used as construction materials, Edible products like several vegetables (Mushrooms), fruits, nuts, bamboo shoots and also spices. Green leaves from some trees and fodder serve as cattle feed. Many plants have been used as herbs, medicine, pesticide and also organic fertiliser. Different kinds of wood are used for constructing fences, timber and fuelwood. Canes and bamboos are used in making agriculture implements, baskets to carry agriculture products etc. (Dhoopa (*Veteria indica*), Suragi (*Mammela longifolia*), Chandana (<sup>ple</sup>~~Me~~rocarpus santalinus), Sandalwood (*Santalum album*), are used in perfumery works where as henna (*Cawsonia inermis*) used as adornment.

Brahmi (*Centella asiatica*), Bhrangaraja (~~wde~~ (*Wedelia urticaefolia*) are used in famous Ayurvedic hair oil while pudeena (*Mentha orvensis*) is used to extract menthol. *menthol*.

Some climbers like bare, Huttige etc., are used to tie materials in constructing houses. <sup>Several forest products</sup> They also provide raw materials to artisans.

I. FOOD

The NTF products which are used as food are listed below

1. Halasu (Artocarpus heterophyllus) Nut and fruits are being used as food. It is commonly available in the month of May, June and July
2. Mango (Mangifera indica): Nut, and fruits are being used as food. It is available during March, April May June, July and August.
3. Vaate (Artocarpus lakoocha): Nut is used for food; Dried slices of the nut <sup>were</sup> ~~was~~ crushed into powder and used as sour in many food items. It is available during March and April.
4. Koulikayi (Carissa carandus) The nut is used especially in making pickles. Available in March and April.
5. Nelli (Embllica officinalis). Used as sour in food items. Available in November-December.
6. Murugalu (Garcinia indica) Fruit cover is used as sour in making food. Oil ~~extra~~ extracted from the seed is also edible. Harvested during April-May.
7. Uppage (Garcinia cambogia): Fruit cover is used as sour. Oil extracted from the seed is used as ghee. Available in July and August.
8. Aramadlu (Zanthoxylum <sup>l.</sup>oratifolium). The nut is used in making pickles and also in several other food items. Available in April-May.
9. Jummanakayi- Nut is used as spice.
10. Honey- Three types are commonly found here, Rock bee (Apis dorsata), Hammer bee (Apis florea) and Indian bee (Apis cerana indica)
11. Dalchini - Bud and bark is being used as spice. The leaves have pesticide nature.

12. Rampatre: Flower is used as spice
13. Beedi leaves (Tumbri etc)
14. Arishina (Cucumber longa)
15. Madahagalu (Momordica dioca) Nut
16. Majjige hullu (Cymhopegan citratum) grass
17. Gavantlekayi & Nut *is edible*
18. Mushroom-Agaricus compestric- Entire plant
19. Challe (Cordia mixa) *Fruit*
20. Wild pepper (Piper nigrum) *used as spice*

Some other wild fruits are-

1. Neralu (Syzygium cumini)
2. Hulimajjige hannu (
3. ~~Bikk~~ Bikke (Gardenia gummifera)
4. Ankole (Alangium salvifolium)
5. Atti (Ficus glomerata)
6. Nurukalu (Bachanania lanzan)
7. Ichalu (Pheenix sylvestris)
8. Paragi or Karemullehannu (Zyzyplus cenoplia)
9. Bilemullehannu (Zyzyplus rugosa)
10. Ranjalu
11. Sampige (Michelia champaka)
12. Halige
13. Dasavala
14. Wild cashew (Semicarpus anaredum)

Other products <sup>like</sup> include Elavarige, Bilvapatre, Sambar soppu, Ranjaragadue, Neem, Kesa, Ondelaga, Kannekudi, Genasu, Mushroom, some beans, kalale (Bamboo shoot), serve as vegetables.

Used for cattle feed: Green leaves from Honne, Halavaru, Shivanne (Gmelina ariatica), Baine, Dadasalu, Kanagalu, Bilsidi, *Bil kambu*  
Grass and fodder, several climbers.

## II. HERBS MEDICINE

Hundreds of plants were being used as medicine, few of them important are listed here.

1. Vayuvilanga (*Embelia ribes*) used to treat gas & trouble, and also to treat trouble from worms.
2. Taari (*Terminalia bellerica*); Nut mainly used in making triphala.
3. Nelli (*Embllica officinalis*) : Nut mainly used in making triphala. churna. Greenleaves are used as pesticide.
4. Kaare
5. Kasarka (*Strychros nuxvomica*) The leaves and fruits are used as insecticide.
6. Rammana Soppu or Mukkadalea (*Kasiosiphon erio<sup>c</sup>cephalus*): Diseased plants like paddy can be <sup>c</sup> cured with a decoction of this leaves with kasaraka (*Strychnos nuxvomica*).
7. Shatavari
8. Anale (*Terminalia chebula*) Used in mainly triphala and also to treat venan in ~~ø~~ foot fingers in rainy season.
9. Kodasa (*Halarrhena antidecentrica*)
10. Uppage (*Garcinia cambogia*)
11. Murugalu (*Garcinia indica*): Fruit cover is used in treating
12. Neem (Bevu) (*Azardica indica*) Used as medicine and pesticide.
13. Lakki soppu- *Vitex negudo* - Pesticide.

### III. OIL/NUTS

1. Uppage (Garcinia cambogia): Oil extracted from the seed is used as ghee.
2. Murugalu (Garcinia indica): Oil extracted from the seed is edible mainly used to boil the food. It has medicinal property used in treating cracks in foot, fingers and face.
3. Andiseed: Oil extracted is used for lighting purpose. Generally some backward communities living in the remote areas used this oil to glow lamps.
4. Soapnut (Sapindus laurifolius) Used for washing purpose. Dried nut is crushed to a powder and efficiently used for washing cloths as well as body.
5. Seege (Acacia concinna): Dried nuts powder is used to wash cloths and body as similar to soapnut. Many times, this powder is mixed with soapnut to get better result.
6. Kaare
7. <sup>n</sup>Hodge- May be used for washing purpose.

Several other nuts are being used in several respects like Taari, Anale Nelli, vaate etc., <sup>which are</sup> ~~Nelli~~ already mentioned in NTFP's which are used as food.

### IV. Cane

Canes are generally used in making several agricultural implements and also to tie houses (just as thread). Commonly used to make baskets and mats to carry agriculture products and ~~also~~ fertiliser. Several type of furnitures like are also done by the cane like chairs, tables etc.

Difference species available in this region are  
Naghabetta (Calamus rotang), Handi Bettha (Calamus thwaitessi)  
Haalu bettha (Calamus pseudotenuis).

V. BAMBOO

Bamboos are used to make some agricultural implements to make mats  
and also as poles.

Species that are commonly found here are-

Vaate bidiru (Ochlandra rheedi), Shame (Oxytenanthera monostigma),  
Male bamboo (Dendrocalamus strictus), Female bamboo (Bamboosa arundinacea)  
Yellow bamboo (Bambus vulgaris)

VI. FIBRE

Several plants were being used to take fibre, These are

1. Kouri, (2) Kavalu (Carex arborea), (3) Baine (Caryota urens)
- 4). Dasavala (5) Karki (6) Basari (7) Bilva
- (8) Kathale- Agave americana)

HARVESTING OF NTFP

*Rate according to 1995-96*

Spice products like Rampatre, Dalchini and wild pepper are harvested  
during January, ~~Feb~~ February and March. The households who live nearby  
the forest collected 10-15kgs each of this annually. and 1-2kgs in a  
day by a person.

Flowers (Petals around nut) from the tree Rampatre (Myristica malabarica)  
taken out and dried for three four days in sunlight. The rate is upto  
Rs. 75 to 800-per kg. Matured tree grows upto a height of 65 to 100ft.  
So people find it difficult to climb the tree and collect the flower.  
So they easily cut down the trees to get the product. To give a  
particular example: The forest called Kambikanu lying between Kalase

Gonsar and Kakkalli villages in Sirsi taluka consisted of plenty of this *Myristica malbarica* in 1980th decade. But as the prize of its flower increased people from these three villages started to cut down big trees. Today this forest has very very few plants of this variety.

Dalchini (*Cinnamomum zeylanium*): Also called as wild clove. Bud and leaves are taken from the tree. While harvesting this, the branches are cut down, which may take 304 years to get sprout and yield products.

Wildpepper: This climber ~~stretches~~ *stretches* on other trees in the forest. Matured fruits are harvested from the climber. Some times people use ~~to~~ pull the climber which are spread on bigger trees.

Honey: Five types of honey <sup>are</sup> available in this area.

- (1) Rockbee (*Apis dorsata*)
- (2) Indian bee (*Apis cerana indica*)
- (3) Dammer bee (*Apis florea*)
- (4) Kolujene
- (5) Hotterumma.

Rockbee: is usually harvested in the month of June. The honey matures as the flowers of trees like Henneralu, Matti (*Terminalia <sup>alata</sup> tomentosa*) Neralu (*Syzygium cumini*) Uppage (*Garcinia cambogia*), becomes stale. Nest of the honey bee <sup>colony</sup> ~~become~~ become big and the tip of the honey hive gets thin. The bottom of the nest also becomes thick. Some households collected 40-50kgs of honey in a year. Indian bee harvested during the months of May to september, where as Dammerbee usually harvested in Mage Rain i.e., during August-September. If the honey is harvested before it gets matured the younger bee <sup>will not</sup> ~~without~~ matured and they die soon. Some people harvest the honey to eat this younger bees, which results in the declination in the population of bees. Honey hunters use fire and smoke to chase the bees while harvesting time. The rough use of ~~this~~ during harvesting also effects the honey bee colony. Exploitation of wood is the another cause. Because of over population

more and more forests are being converted into agricultural land; for instance in the area ~~xxx~~ <sup>Halasinkoppa</sup> in Mensi village Sirsi taluk) 20 years back the <sup>n</sup>umber of honey bee colonies was more than 25-30, ~~in~~ every year. Today people had encroached this forest and converted it to an agriculture land after clearfelling several big trees. *As a result today there are no more honey bee colonies existing.*

Uppage (Garcinia cambogia): The fruits are available in rainy season. Fruit cover and seed are collected for sale. Because of rain, people find difficult to climb the tree to collect the product, hence <sup>people don't</sup> they cut <sup>some times</sup> down the branch or even trees. If they cut the branch 2-3 years <sup>the tree</sup> continuously ~~they~~ will die out soon.

*hesitate to cut*

MARKETING:

All these products are sold locally to local merchants or local sub-agents. Today what is going on is; the persons who have got tender to collect these products will decide the rate according to his own wish. He gives the permission to local subagents to collect NTFPs. Further they reduce the rate keeping their commission. So at the end the person who collects <sup>s</sup> these products <sup>a</sup> will get very less prise. The price varies considerable <sup>from</sup> time to time and place to place. For example fruit cover of Garcinia cambogia., initially rate was just Rs. 12/-per kg (i.e, on August-September) <sup>1995</sup> then it increased upto Rs. 60/-per kg (on Nov-Dec)

*Many people already sold out these*

Many villagers are poor persons and they take advance to collect NTFP, <sup>from</sup> ~~from~~ these subagents. So it is a must for them to sell the product to ~~them~~ <sup>these subagents.</sup> Transportation is the another problem, many villages are quite far from the city and the villagers were not able to sell the product in city market.

*local sub agents*

Conclusion:

Non timber forest product contribute a great part in rural economy. Some households earn ₹ 15 to 20 thousand rupees annually by selling the NTFP which is much more than the income <sup>what</sup> that they get by agriculture. Today NTFP's have got high prize and respectively the evil desire of human beings also increased. These forest products are no one's property and hence people wish to take it as earliest than others can. So they started to cut down the big trees which are unable to climb, to get the product. Infact not all the villagers will do this, but there are some forest hunters who always do this. Local merchants or sub agents (may be from small city nearby the forest) also collect NTFP. These people want to take the product in a hurry and hence ₹ cut <sup>down</sup> ~~down~~ the tree or pull down the climbers. Such people should restricted to enter the forest every time. There must be a strict rule in avoiding these people.

Many villagers think that these products are not ours but some one else and ~~they~~ distrust it easily without knowing importance of forest. So proper method has to be taken to convert this type of people's mentality. They can be trained properly and also to realise the problems after clearfelling the forest. (NTFP collector Gurumath Hegde says that some 8-10 people who always do harm to NTFP from each village has to be taken away to plain land and should be trained about the important of forest. He also opine that it is good to avoid taking some NTFP's for few years like Garcinia cambogia).

Making a co-op society for NTFP not only helps to give proper profit to the villagers who have collected it but also helps in avoiding the ₹ over exploitation.

By giving constant and proper rate to the NTFP, people realise that

they are our own properties and not others.

by NRH

421

OTHER MINOR FOREST PRODUCE

I. RAMPATRI:

Introduction: It is also considered as minor forest produce Rampatri trees are situated in thick forest of western ghat. Specially in Mattigatta and Yana region people in their part time go for collection of this fruits. Big trees will bear maximum number of fruits Riped fruits will fall on the ground. These fallen fruits will be collected by the farmers. In some region farmers climb up the trees and cut down fruits containing branches by this way they get more number of fruits. Collected fruits should be opened and separate the patri from the seeds and these patri will be dried under sunshine. Dried patri cost about Rs. 60/-kg. This dried patri will be used in Gharam masala. Farmers who go for cutting of branches should be finished. Department of forest promote the farmers to planting more number of plants in their own land by supplying of more number of seedling & to farmers.

II. KAVALEKAI

Kavalekai or Ganapekai trees are situated in Manchikeri region forest. A type of seeds which contains hard coat. These will be collected by farmers in their free time. Thick vines which grow on big trees from this Kavalekai fruit will be beared. These vines are situated in other place also. But only Manchikeri region people are showing interest about the collection of this shell a kg of these shell cost about Rs. 2-2.50. These shells are in brown colour when they turn to blackish brown they will fall on the ground. These fallen shell will be collected and sale it to the village level agents. According to village level agents these will be used to manufacture of some pesticide. Therefore demand may be increased in future.

### III. KASARAKA KAI

Kasarak trees are situated almost all the places. But collection will be taken place only in few places. Mainly in Manchikeri region, people collect this Kasarak beeja. Kasarak fruits when come to ripe it in May-June will fall on the ground. These fallen fruits are collected by farmers. Collected fruits will be opened and separate the seeds from fruits and then dry in sunshine. One kg of dried Kasarak beeja cost about 2.50-3.50Rs. According to village level agent K.M. Pujari, these Kasarak beeja will be used in manufacture of pesticide.

### IV. TARIBEEJA

Seeds of this crop is also collected in some areas as minor forest produce specially in Bislakoppa region. When fruits come to ripe they fall on the ground. Fallen fruits are collected and sale them to village level agents. 1 kg of taribeeja cost about 80 paise to 1 rupee. According to agents it may be used in preparation of oil and beer.

### V. DUPA

Extraction of Dupa is being practiced only in Mattighatta region. Dupa is callus substances which ooze out from big tree. Callus is extracted from big tree making injury to the tree. Due to this injury callus will be oozing out through injured portion and it will be attached on trunk it self after solidification. This solid state dupa will remove from the tree.

### VI. WATEKAI (WATE HULI)

Introduction: Watehuli trees are situated in almost all places in Canara circle mainly in Malkiland. Fruit of this crop is used as sowing agent, especially outer wrind of the fruit is used for consumption. Inner part which is hard seeded part will not be used.

Distribution: Generally all houses in village area have minimum of one or two trees but these trees will not bear large number of fruits.

Method of harvesting: Usually fruits come to harvest in the month of April-May. Only well matured fruit but do not fully ripened fruits will be harvested. Generally harvesting is done using the bamboo stick. Harvested fruits will be dipped in water about 24 hours. Then take out these fruits and outer smooth portion will be cut in to slices.

Processing: These sliced pieces will be dried in sunshine. For drying keep this slices in single layer it takes about 10-11 days for complete drying. Dried pieces are to be ~~so~~ stored in air tight container for later consumption.

Uses: Watehuli is a souring agent so this is used in making sambar and other product. There fore majority of people do not go for sale this slices. One kg of dried pices (slices) costs about Rs. 20.

by- G.N. Hegde

PSK  
F21

B. NTFP STUDY (Non Timber Forest Product)

1. BACKGROUND

The study is preliminary in nature the methodology will be to collect information from various sources on harvesting of NTFP. An attempt will also be made to assess the marketing of NTFP and the income derived by NTFP collectors. The study will collect the basic information on the status of NTFP in the district and indicate the future strategy. It may be followed by another indepth study on harvesting the NTFP on sustainable basis and the marketing strategy.

2. OBJECTIVE OF THE STUDY

1. To conduct preliminary assessment of NTFP in the district.
2. To understand the modes of extraction and the trading at local level.

3. METHODOLOGY

The study examines the uses of NTFPs, the role they play in rural economies, and the impact of forest degradation on their use and value. It examines household uses of NTFPs through a series of village studies and examines the trade of selected NTFPs by means of market studies.

The village studies provide an expansive picture of the way people use and value forests. Information on nutrition (forest food consumption and its importance in the diet), plant medicines, and the use of NTFPs for house building, household and agricultural equipment, fuelwood, fodder, and in trade and processing activities. The uses of on farm and village trees and local attitudes towards forests will also be explored.

The study of NTFP will provide an overview of the range of NTFPs sold, as well as a more through understanding of the trade of a few selected products.

4. RESOURCES REQUIRED

One investigator for 6 months  
Travelling expenses  
Coordinators support  
Stationery etc.

5. TIME FRAME

From April 1995 to December 1995

6. Outcome:

It will help to assess the present situation of availability of NTFP and its importance in the lives of forest dwellers. It will also help in evolving future strategy.

7. BUDGET

	<u>Amount</u>
Investigator 1 x 6 months @ 1000 p. month	6,000.00
Coordinators Honararium Rs. 200 per day for 40 days	8,000.00
Honararium for consultants 200 x 10	2,000.00
Travelling	8,000.00
Stationery etc.,	5,000.00
Contingency	1,000.00
Total	<u>30,000.00</u>

PSIC F 21

PROJECT PROPOSAL

STUDY OF NTFP (NON TIMBER FOREST PRODUCE)  
IN UTTARA KANNADA DISTRICT, KARNATAKA

BACKGROUND

Uttara Kannada district is known as 'Forest District' <sup>with</sup> as 80 percent of its ~~total~~ geographical area ~~is~~ classified as forests. Over the years, there is reduction in the forest cover due to pressures from various developmental activities. There is enormous pressure from developmental projects as well as from rising population.

The forests of Uttara Kannada is part of western ghats. This has tropical forests ranging from evergreen, semi evergreen to moist and deciduous forests. The forest policy has followed the path of harvesting forest produce for commercial purposes. Harvesting of timber, after ~~a~~ cutting the tree cover is one of the major sources of income for the state. The timber harvest from Uttara Kannada district contributes about half of the total revenue from timber for entire state. Thus, there is enormous pressure on harvesting timber to earn revenue.

~~However~~ <sup>In</sup> recent years the importance of tropical forests is well recognised all over the world and there is serious attempt to give ecological perspective in formulating forest policy. As the state government is concentrating on managing forests for timber production the forests provide basis for generating employment to poorest forest dwellers through collection of NTFP or popularly known as MFP (Minor Forest Produce). A large number of people are engaged ~~a~~ in collection of NTFP from forests. According to a rough estimate the value of NTFP collected ~~dx~~ from the district is about 25 crores of rupees every year ~~x~~.

N. Shree

(H)

(H2)

wide margin

IMPORTANCE OF NTFP

The harvesting of NTFP in the forest district shows the enormous potential of the tropical forests to yield a sustainable produce and earn regular income to the forest dwellers. The biodiversity of the tropical forests enables the forest dwellers to harvest these products. They are collected from wild from the evergreen and deciduous forests. In many areas collection of NTFP is one of the main sources of cash income to farmer. As the land holding is very small and marginal, the people live on a narrow land base. The wild diversity is a source of security that provides cash income to the poorest groups, who are mostly tribals.

In addition to harvesting of NTFP the indirect activities associated with it, mainly collection and distribution, marketing etc., employ a large number of people. Thus it is a source of regular employment for the people in the district.

Problems in Harvesting NTFP

The onslaught on forests to harvest timber is a major threat to existing biodiversity of the region. The inroads made by commercial forestry of converting natural tropical forests into monoculture plantations (of teak or eucalyptus) has reduced the diversity affecting the yield of NTFP. Nevertheless, there exists ample opportunity to collect ~~some~~ NTFP. (A list of NTFP produce collected from the forests in that district is enclosed).

WGFP/JFPM and NTFP:

The JFPM has initiated a process to give rights of NTFP collection to forest dwellers through VFCs. This is a step towards decentralisation and delegation of power over natural resources to local people. In the long run this may be helpful towards evolving sustainable management/harvesting of NTFP.

The collection of NTFP has following problems:

I Harvesting: Most of the time the product (NTFP) is available in the evergreen forest region. There are specific trees that yield fruits (Uppage: Garcinia cambogia). As the harvesting period is short, the people want to collect more (in quantity) and instead of harvesting the fruit the people lop the branches or the tree itself so that harvesting is easier. Thus the short harvesting season and enormous pressure of demand for collection may force the people to practice destructive harvesting practices. In the forests of Uttara Kannada the diversity has been reduced due to this pressure and some trees are on the verge of extinction.

II. Collection, processing and storage: The collection is done at small scale level in the village. At times the entire family members, including children may be involved in collection of the NTFP or in processing the material. As these activities are done at family level the scale is too small and the benefits are limited. The capacity to process (drying etc.,) and storing the material is limited.

III. Marketing: This is the biggest hurdle in utilising the NTFP. The entire marketing is controlled by middlemen. Though the forest department allots the MFP on tender basis, the trade is controlled by the middlemen and the contractor. According to a rough estimate the forest dweller gets about  $\frac{1}{4}$ th of the price paid by the consumer. The pressure of storage, collection, harvesting and constant need of finance forces the forest dweller to sell his produce at a cheap rate to the middlemen.

IV. Employment: The harvesting of NTFP is a major source of employment during a part of the year. It also helps people to earn the much required cash. The availability of NTFP is dependent on the wild

diversity of the region. However, in recent years the greed to earn more money and make more profit has destroyed the diversity and has reduced the yield of NTFP.

### THE IMPACT

I. Ecological Impact: The increased pressure to harvest maximum quantity from the forests has led to reduction of the resource base of NTFP. The examples are Uppage (*Garcinia cambogia*) and Dhoopa (Resin from *Boswellia senranta*). People cut the trees to harvest more, thus depriving the possibilities of natural regeneration. Thus, the second generation trees do not exist in the wild. A time may come when many species may get extinct.

The processing (to dry the fruits in rainy season on open fire) also takes toll of forests.

II. Economic/social impact: The poorest forest dwellers get some income from NTFP. However, the main economic benefit goes to the middlemen and the retailer. The exploitation process gets reinforced, leading to social injustice among people. There are few people who get enormous money from NTFP ~~and~~ and the people who toil to harvest them remain poor, without proper share from the benefits.

All these leads to destructive ways of harvesting <sup>of</sup> NTFP.

Under such adverse circumstances, we would like to conduct an in-depth research to understand the deeper issues involved in NTFP. This understanding will enable us to formulate a strategy for sustainable harvesting of the NTFP and see that poorest group of forest dwellers get the benefit. This is one of the ways to enhance the biodiversity of the region.

Objectives:

The intention of the project is to study the NTFP resources in Uttara Kannada and how the JFPM process is enabling the people to contribute towards the development of sustainable use of NTFP resources and further the cause of enhancing peoples cash economies and active peoples participation of people in conservation of NTFP. The study will attempt to document the existing pattern of NTFP harvesting, management and marketing.

Long term objectives of the Project

1. To strengthen NTFP sector by understanding the existing situation/potential of NTFP.
2. To create a framework for the sustainable livelihood of the forest dependent people and women who are engaged in collecting NTFP.
3. To create a model of ~~sust~~ susta nable harvesting of NTFP with respect to forest dwellers participation *including JFPM.*

Short term objectives:

1. To create data base of households engaged in NTFP.
2. To assess the potential of VFC to manage NTFPs.
3. To make an inventory of the present management system of NTFP.
4. To understand the linkage of marketing of NTFP from village level onwards.

Research Methodology:

The research will be carried out in the forest & regions of Canara Circle in Uttara Kannada district. The two research assistants will travel throughout the district and collect information on the available NTFP resources, ~~of NTFP.~~

I. Documentation: General Survey of NTFP- The NTFP resources available in the forests of Uttara Kannada will be documented through research surveys.

II. House hold survey: The research will be carried on in these ~~some~~ villages where NTFP is harvested by the people. We shall identify/ select 10 Villages in the region to conduct household survey of NTFP. These ten villages will be selected randomly. However, to incorporate the general trend we shall be selecting villages in the hills and also on the edge of western ghats.

Using a questionnaire and with support of participatory research methodology we shall be collecting regular information for two ~~years~~ <sup>cycles of NTFP harvesting</sup>. We shall be selecting 2 households in a village and shall collect ~~the~~ <sup>20 households.</sup> NTFP utilisation pattern for ~~two~~ years. This will provide an indepth information on the NTFP resources and its links to household economy in the region.

METHODOLOGY IN BRIEF:

A. PREPARATORY PHASE

- Literature study/research
- Consultation with scientists/experts
- Discussion with KFD ~~officials~~ ← officials/ NGOs
- Identifying field area ~~near~~ <sup>for household survey</sup>
- Linking JFPM and NTFP.

B. FIELD WORK

- Interview with NTFP collectors, marketing men and contractors
- Interview with KFD officials
- Identifying villages/households for data collection.
- Selection of VFC in JFPM area under WGFP where NTFP is managed, controlled by VFC.

- Interview, data collection at village level over 2 cycles of NTFP collection.
- Observation of village markets, forests that has NTFP resources,
- collection of photos/slides of harvesting the resources.

C. FINAL PHASE

- Cross checking the data of household survey in second year/cycle of NTFP harvesting.
- Identification in policy gaps towards sustainable harvesting of NTFP.
- Analysis of household data
- Arriving at Policy towards sustainable management of NTFP in Uttara Kannada
- Report writing.

TIME FRAME:

The study will be conducted for two years. The work shedule is as follows:

- 1997 (6 months) Jan-June : Initiating the study
- Testing, questionnaire
  - Restructuring the questionnaire
  - Collect information from secondary sources
  - Identify 10 villages for household survey
  - Initiating household survey
- 1997 (6 months) July-Dec: Household survey
- Collection of data on available NTFP
  - Writing report
  - Documentation
- 1998 Jan-June :- Household survey
- Documentation
  - Prepare NTFP map of Canara Circle
  - Collect information on Marketing of NTFP

- 1998 July-Dec :- Household survey
- Analysis of data
  - Finalisation of NTFP Map
  - Final Report.

ORGANISATION

'Prakruti' is a NGO working in Uttara Kannada district over past 5 years in the area of natural resource management. 'Prakruti' will provide administrative and practical support for the project. It will work in close cooperation with scientific institutions like CES, Sirsi and Forest Research wing of KFD. Necessary assistance will be taken through KFD <sup>and NGOs</sup> for field visits.

'Prakruti' will be responsible to maintain the accounts of the project and for sending yearly report on the progress of the project.

Target Groups:

- The project aims to understand the difficulties of forest dwellers and indigenous people like Siddis and Gowlis who depend on NTFP for livelihoods.
- Approximately about 10,000 people especially weakest groups of women and men depend on NTFP collection in Uttara Kannada. The study will try to document their difficulties as perceived by them.
- VFCs <sup>and their capacity to</sup> that are managing NTFPs.

BUDGET

	<u>IYr</u>	<u>IIYr</u>
<u>I. Honararium</u>		
1. One Co-ordinator @ Rs. 2000 p.m.	24,000	24,000
2. Two Research Assistants @ Rs. 2000 p.m. (2 x 2 x 12)	48,000	48,000
<u>Consultancy</u> @ Rs. 300 per day x 30 days in a year (Mr. Dabgar(Sirsi) and Dr. Murali(Bangalore))	99,000	9,000
<u>II. Travelling</u> (Local travel + travel to other areas, workshops etc.,)	25,000	30,000
<u>III. Stationery/equipment</u>	10,000	8,000
<u>IV. Documentation/typing</u> @ Rs. 1000 p.m.	12,000	12,000
<u>V. Postage + Telephones + Fax</u>	8,000	10,000
<u>VI. Accounts/Administration</u>	10,000	15,000
<u>VII. Contingency</u>	5,000	5,000
	<u>-----</u>	<u>-----</u>
Total	<u>1,51,000</u>	<u>1,61,000</u>

Total Amount Requested From Oxfam: First Year 1,51,000  
Second Year 1,61,000  
Rs. 3,12,000

(Three lakh and twelve thousand only)



Research Foundation for  
**Science Technology And Natural Resource Policy**

24th December 95

Dear Friend,

We are pleased to enclose for you the resolutions from a two day seminar on "Grassroots democracy and the threat to survival" organised by Institute of Social Sciences and Research Foundation on 21 to 22nd December.

The meeting had three major objectives.

The first was to establish an interaction between elected reps from local bodies and those concerned with the freedom, independence and the survival of the country under the threats of globalisation.

The second objective was to evolve principles for deepening democracy and containing the destructive forces of globalisation which could also become a basis of commitments made by people's reps during the forthcoming elections and be taken up in the manifestos of political parties.

The third objective was to move intellectually and ideologically to an agenda beyond globalisation - the agenda of relocalisation of the economy and quality, and through such relocalisation protect people's sources of livelihoods and their natural resources and life support systems.

We need to make the New Year a year of second struggle for freedom in which national sovereignty stands firm in the roots of people's sovereignty and both the market and the state are tested at every step by people's institutions and people's power.

With best wishes for 1996

*Vandana Shiva*

Dr. Vandana Shiva  
Director

105, Rajpur Road  
Dehra Dun - 248 001  
INDIA

A-60, Hauz Khas  
New Delhi - 110 016  
INDIA  
Phones : 011-6856795/6968077  
Fax : 9111-6856795/4626699  
E-Mail : TWN@Unv.ernet.in

PSK F21

STUDY OF NON-TIMBER FOREST PRODUCE (NTFP) IN UTTARA KANNADA DT.,  
KARNATAKA: A PROJECT PROPOSAL

Background

Uttara Kannada District in Karnataka state (South India) has 80% of the land classified as forest area and is one of the important centres of biodiversity in the Western Ghats. The evergreen, semi-evergreen, and deciduous forests here have enormous plant genetic resources, which the local communities have been utilising for centuries. In recent years however, the pressure of increased demand for timber has resulted in depletion of forest resources. Timber has become an important output and the role of NTFP relegated to the background. There is still a sizeable amount of NTFP being collected by the forest dwellers of the area. Some of the products are *Uppage* (*Garcinia cambogia*), *Kokam* (*Garcinia indica*), Pepper, Cane, and numerous medicinal herbs. There is no systematic study of NTFP harvesting and dynamics, for this region, to help with better forest management. It is proposed that PRAKRITI, an NGO based in Sirsi, conducts a study on NTFP over a two year period.

Objectives

- 1) To study the NTFP situation in the tropical forests of the Western Ghats in Uttara Kannada District.
- 2) To document harvesting practices and marketing of NTFP.
- 3) To examine the potential for sustainable harvesting of NTFP.
- 4) To make recommendations based on the study that would help in an objective, unambiguous management of the forests of the area.

Methodology

The study will be carried out in selected sites with Sirsi as the base. Primary field work will be done in documenting NTFP collection, marketing, and sustainable harvesting. Secondary data will also be collated and analysed. Sources of information will include NTFP collectors, the local Forest Department officials, relevant research institutes, individuals, and literature.

Budget

Particulars	I year	II year
Honoraria-Research Assistants (3 x 2000/-)	Rs. 72,000	72,000
Honorarium-Coordinator (1 x 2000/-)	24,000	24,000
Travel	20,000	30,000
Typing, Photocopying, Postage, Telephone	15,000	20,000
Consultancies	10,000	15,000
Contingency	10,000	15,000
Total	1,51,000	1,88,000

Principal Investigator and Contact:  
PANDURANG HEGDE  
Prakruti  
Hulemalgi Building, Chowkimath  
SIRSI 581 401, Uttara Kannada Dt.  
Karnataka

Ph: 08384-75139  
Fax: 08384-75131

PSK #21

FAX: 011 2941375

PROJECT PROPOSAL: STUDY OF NTFP (NON TIMBER FOREST PRODUCE) IN UTTARA KANNADA DISTRICT, KARNATAKA, INDIA.

BACKGROUND: Uttara Kannada district in Karnataka is one of the main centers of biodiversity. About 80% of the land is classified as forest area. The evergreen, semi evergreen and deciduous forest areas of Western Ghats has enormous plant genetic resources. The people are utilising these resources for generations. However, in recent years the pressure of increased demand of timber and increase in population has resulted in depletion of forest resources. Timber has become a important output and NTFP is relegated to the background. In spite of the denudation of forest resources, forest dwellers are still harvesting NTFP from this region. Some of the NTFP collected from the tropical forests of western ghats are: Uppage (Garcinia cambogia), Kokam (Garcinia indica), Pepper, Cane and numerous medicinal herbs. However there exists no systematic study of NTFP in this region.

OBJECTIVES: 1) To study NTFP situation (Uttara Kannada) in the tropical forests of western ghats. (2) To study harvesting practices of NTFP. (3) To study the marketing of NTFP products. (4) To study the potential for sustainable harvesting of NTFP.

METHODOLOGY: The study will be carried out at various levels. First the available secondary data will be collected from the sources (Forest Department, etc.,) Secondly the forest dwellers and marketing chain will be studied by personal interviews. Thirdly, the NTFP regions will be visited to understand the potential of sustainable harvesting of NTFP.

BUDGET: The study will be for two years to be conducted by PRAKRUTI.

<u>Particulars</u>	<u>Iyr</u>	<u>IIyr</u>
1. Research Assistants (3x2000 per month)	72,000	72,000
2. Co-ordinator (1 x 2000 per month)	24,000	36,000
3. Travelling	20,000	30,000
4. Typing, Documentation, Postage + Telephone	15,000	20,000
5. Consultancies	10,000	15,000
6. Contingency	10,000	15,000
Total	<u>1,51,000</u>	<u>1,88,000</u>

Name & person for contact: Pandurang Hegde  
PRAKRUTI  
Hulemalgi Bldg, Chowkimath  
SIRSI 581 401 (U. Kannada)  
Karnataka, India

PH : 08384-75139  
FAX: 08384-75131

*Pandurang*

PSK  
F 21

CONDITION FOR UPPAGE SALE

1. While harvesting care should be taken to pluck only ripen<sup>ed</sup> fruits. The contractor shall be responsible to oversee that Uppage trees are not lopped for harvesting of fruits.
2. The contractor shall loose the permit if looping of trees are detected in his range.
3. The contractor should establish a centralised collection centre for Uppage fruits. At this centre he will dry these~~s~~ fruits, which will reduce the consumption of fuelwood.
4. The contractor shall install posters to create awareness about Uppage trees, and in its conservation.

PSK  
1-21

UPPAGE DRIER

I) Civil Materials List

1) Burnt Bricks or Holo blocks	1500 (400)
2) Factory Bricks	
I, 9" x 4.5" x 1.5"	50
II, 9" x 4.5" x 3.0"	40
3 Cement	6 bags
4 Sand	0.5 Load
5 Lime Powder	150 kg
6 Red soil	0.5 load
7 Mangalore Tiles	20
8 Flat clay Tiles	60
9 A C Pipe	4 nos
10 C.I. Crate	1 nos
11 G.I Pipe 10 x 10	1 nos
12 Chicken mesh	1 mtr
13 1/2 g 1 Pipe	1 mtr

\* Total Materials cost 12 000=00

II) Fabricated Materials (Try, doors, GI sheet, equal angle etc.) 23.000=00

III) Masinary and Construction 4.000=00

\* Total Drier Unit Cost 39.000=00

( Total Tharty Nine Thousand Only)

PSK  
Newark

A brief outline

PSK

F 21

BOOKLET (IN KANNADA)

SUSTAINABLE HARVESTING OF NTFPs

bold

This booklet is an attempt to create awareness among forest dwellers and common people on the importance of NTFP. It discusses the relevance of NTFP in conservation of tropical forests. The revenue oriented logging policies are destroying the diversity of tropical forests causing adverse impact on ecology and NTFP resources. In contrast, collection of NTFP provides an alternative way of utilising tropical forests. The collection of NTFP helps in conserving biodiversity and at the same time provides livelihood opportunities for forest dwellers. The increased demand for NTFPs in Western Ghats have led to over <sup>exploitation</sup> ~~harvesting~~ and unsustainable harvesting of NTFP resources. This practice, if continued will lead to extinction of certain species and destroy the tropical rainforests, leading to destruction of livelihood opportunities. In order to conserve NTFPs we need to adopt harvesting methods which does not destroy the resources.

Various methods of sustainable harvesting of NTFPs (fruits, honey and resin) are discussed. In the end a list of NTFPs with present harvesting practice, options for sustainable harvesting are given.

Prakruti

April 2000

23/03/95  
10037  
3008

NULVI CONSULTANCY HUBLI  
modren thered

3313.25

23/03/95  
10037  
3008

NULVI CONSULTANCY HUBLI  
modren thered

3313.25

03/06/95

Closing balance

0.00

Pelgum 8/8/95

CM

-UP.

- Please Save SLB life
- Swop Telw-Dam
- App Nubla

SLB

We appeal you to break the  
fenth. swop The nation needs  
you to inspire people

App Man