

***STUDY OF UNCULTIVATED FOOD SPECIES
IN UTTARA KANNADA, KARNATAKA, INDIA***

**Documentation and dissemination of knowledge on wild food
(uncultivated) species used by people on the tropical forest regions of
Uttara Kannada district, Karnataka.**

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Prakruti

*Hulemalgi Brothers
Chowkimath, Sirsi.581401
UttaraKannada,Karnataka*

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THE PROJECT TITLE:

Documentation and dissemination of knowledge on wild food (uncultivated) species used by people on the tropical forest regions of Uttara Kannada district, Karnataka.

1.INTRODUCTION

27000⁰plants known to science
of which more than 30000 are known to be edible
7000 have ever been used for food
of which no more than 120 are cultivated today
90 provide 5% human food
21 provide 20% of human food
9 provide 75% of human food
- Food for all, FAO, 1996

In the era of transgenic food, developing pest resistant crops may solve the problem of food production but in the process, the crop diversity would be reduced threatening the food security of the poorest people.

Forest foods are nutritionally important and are traditionally used supplements to the staple diet. These add diversity, flavour, vitamins and minerals to characteristically grain dominated diets. (Forests, Trees and Food, FAO, 1992)

The high diversity of genetic resources of the forest provides a regular source of protein and nutrition. Wild fruits are consumed as well as sold in the market. Wild foods also protect the immune system, thus ensuring the health of forest dwellers. Their loss increases malnutrition and causes reduction in food security of the people.

However, there are hardly any attempts to document the local knowledge of wild food resources in Western Ghats of Karnataka. Here we have attempted to document the wild foods of Uttara Kannada district.

1.1 Description of the study site.

Uttara Kannada district in Karnataka State in India forms part of the Western Ghats. It is located between 13°55' to 15° north latitude and 74°09' and 75°10' east longitude. Total population is 1220260 in 11 talukas of 1338 villages and 13 major towns. (1991 census) Uttara Kannada district has 80% of its geographical area under forests. The diversity of forests, from evergreen to deciduous and scrub forests has given a unique ecological niche to the region. The tropical forests and the abundant natural resources have supported diversity of culture and communities that has evolved skills to harness the natural resources.

There are numerous communities like *Halakki Vokkals* on coasts, *Siddis* (Negroid tribes) *Marathis*, *Khare Vokkals* and *Kunbis* in midst of the hills and forests. On the edge of Western Ghats, there are *Goulis* (animal herders). The forest dwellers have evolved agriculture diversity specifically to meet their survival needs. They are using the wild species as food and vegetables.

Table 1.1 Details of geographic area and population of Uttara Kannada district.

Total Geographical Area (hectares)	1029100
Total Population	1220260
Population in Rural area	925744
Population in Urban area	294516
Total forest area	829000

1.2 Research objective :

To document and disseminate the knowledge of wild food crops, as well as the species grown in home gardens in Uttara Kannada district of Western Ghats and to develop a data base of wild food plants. There is no study on this issue in this region.

1.3 Methodology:

1. To collect information from the available secondary sources, published, or unpublished.
2. To involve forest dwelling communities in evolving a participatory approach in documenting Knowledge of wild food spices and home gardens.
3. To conduct research through questionnaire method and interview the people who use these resources.
4. Participatory techniques including PRA.
5. Involving the school students in data collection and knowledge disseminating process.

2. ECOLOGICAL PROFILE OF THE DISTRICT

2.1 Physical /geographical description.

The district has four major eco zones, the coastal zone in the west, the foothills, the crest line of the Western Ghats and the plain land in the east. These different eco zones have hosted different forest types. The crest line is predominated by wet evergreen forest and semi evergreen forests. The foothill has dry deciduous to semi evergreen forest, mangroves dominate the coastal regions and the eastern plateau has moist deciduous and dry deciduous forest types.

2.2 Biological diversity

Species	Total Species recorded	Endemic Species	% endemic to WG
Plant Species	4780	2180	45.61%
Bird Species	528	40	7.58%
Mammal Species	140	38	27.14%
Reptile Species	259	161	62.16%
Amphibian Species	146	116	79.45%
Total Vertebrate Species	1073	355	33.08%

Source: Myers et al, (2000)

2.3 Major threat to agro-bio diversity

More than 2,30,000 hectares of forest cover is lost in Western Ghats of Karnataka due to hydel projects, roads, mining, agriculture expansion, commercial logging and for rehabilitation. Within Uttara Kannada district the loss of forest cover is more than 78090 hectares from 1953 to 1983. (Source: KFD annual reports 1983)

The degradation of forest cover is a major threat to bio diversity. Many wild food species, *Myristica malabarica*, *Garcinia gummi-gutta*, *Artocarpus lakoocha*, *Artocarpus heterophyllus* and other varieties are depleting. Wild varieties of mango locally known as *Appemidi* used especially for pickling are disappearing on the banks of the river.

Our study revealed that in the study clusters the agriculture diversity is also depleting due to various reasons.

Change in land use: In almost all the study clusters farmers converted most of their paddy fields in areca garden. Low land paddy fields are converted into areca garden where as upland and dry land paddy fields are converted into cotton fields. Natural forests are converted into plantations like acacia and eucalyptus. Earlier, farmers used to grow the crops for two to three times in a year in different season following the crop rotation system. However, in recent years due to scarcity of water, manure and labour, many farmers are growing the crop only once in a year. In this process many paddy varieties have disappeared.

3.SOCIO –ECONOMIC PROFILE

We have selected five study clusters in Uttara Kannada District. The study clusters are selected to represent five prominent forest dwelling communities. Each cluster consists of two villages.

Table.3.1.Population details in the study clusters

Clusters	Male	Female	Total
Murooru	1275	1025	2300
Chipgeri	440	390	830
Jaddigadde	585	530	1115
Kirwatti	435	410	845
Nilkund	360	340	700

Table.3.2. Details of clusters and communities.

Clusters	Communities
Murooru (coast)	<i>Halakki Vokkals</i>
Chipgeri (edge)	<i>Siddi, Havyak</i>
Jaddigadde(crest lines)	<i>Havyak, Kumbi</i>
Kirwatti (edge)	<i>Gouli</i>
Nilkund (crest lines)	<i>Khare Vokkaliga,Havyak</i>

Murooru: This cluster is situated in coastal region of the District. This is situated about 9 kilometers from Kumta town. This cluster is selected for the study because of presence of special forest dwelling community known as Halakki Vokkals. It is situated on the foothill of Western Ghats with dry deciduous and semi evergreen forest types. Agriculture is the major occupation of the people. Farmers grow paddy, black gram, coconut, areca nut, nutmeg, pineapple, cashew, Beru halasu and several vegetables. Other communities residing here are Havyaks, Naik, Ganiga, Mukri, Achari and Madivaal. Total population is about 2300. Paddy crop is grown twice in a year. Some traditional paddy varieties like *Halaga* and *Kagga* are grown here which are suitable in saline and backwater conditions.

Chipgeri: Chipgeri is situated about 28 kilometers from Yellapur, Taluk head quarters. It is situated on the edge of Western Ghats with deciduous forests. *Siddi* and *Havyaks* are

the major communities residing in the village. Agriculture is the main occupation. Paddy, arecanut and spices are mainly grown here. For *Siddis* NTFP collection is the major occupation. *Havyaks* mainly depended on agriculture.

Jaddigadde: Jaddigadde is situated about 32 kilometers from Sirsi, the Taluk head quarters. It is situated on the crest line of the Western Ghats. *Havyaks*, *Kunbis* and *Khare Vokkaligas* are live in this cluster. Agriculture is main occupation. Arecanut and spices are mainly grown here. Paddy, sugarcane, coconut, cashew, nutmeg, black gram, melons and several types of vegetables are also grown here.

Agriculture laboring and collection of NTFP (Non Timber Forest Products) also provides other livelihood opportunities for the forest dependent communities. NTFPs, which are also wild foods like *Uppage* (*Garcinia gummi gutta*), *Murugalu* (*Garcinia indica*), *Vaatekayi* (*Artocarpus lakoocha*), Honey and wild pepper are collected from the forest.

These are used for household consumption and sold in the market.

Kirwatti: This study cluster is situated in northern side of Yellapur Taluk on the edge of Western Ghats. Dry deciduous to semi evergreen type of forest is present in this cluster. *Goulis* are the major inhabitants of this cluster. Traditionally they are nomadic community, mainly depended on animal husbandry and shifting cultivation. However, nowadays they have settled here. Paddy is the major crop. Besides they grow cotton, vegetables and lentils.

Nilkund: Nilkund is situated about 26 kilometres from Sirsi and 35 kilometres from Siddapur, taluk head quarter. It is situated in the crest line of Western Ghats. It is situated above 600 meters from mean sea level. *Khare Vokkaligs*, *Havyaks* and *Muslims* live in the village. The region is surrounded by thick wet evergreen type of forests. *Havyaks* and *Khare Vokkaligas* are engaged in farming. Areca orchards and paddy fields are commonly seen in this cluster. Several spices, coconut and fruit trees are grown along with areca. Black gram, beans, cucumbers and vegetables are grown in paddy field after monsoon. Muslim community is engaged in trading. Total population is around 450.

Communities:

Halakki Vokkals : One of the backward communities, depend mainly on agricultural laboring and on collecting forest products for their livelihood. Agriculture is the another occupation for them. The word *Halakki* comes from Kannada *halu* means milk, and *akki* is rice. Probably because the *Halakki Vokkals* are the *main community* growing better

quality of rice. Many *Halakki Vokkal* communities in the coastal region grow different vegetables in their home garden and sell it in the nearby market. They seem to be among the earliest settlers in the coast (Gazetteer, 1883).

Khare Vokkaligas: One of the forest dwelling communities in Uttara Kannada district found only in forest tracts and remote villages. Agriculture, Agriculture labouring, NTFP collection are the major occupation for them. Their houses are normally small huts thatched by areca leaves, fodder, or by palm leaves. These people are experts in climbing trees to harvest arecanut and spray bordo mixture to areca bunch. They are also experts in harvesting honey from wild especially of the rock bee and Indian bee (*Apis cerana*).

They live in midst of the tropical forests of Western Ghats. They have small patch of land in which they cultivate paddy and areca. They collect Non Timber Forest Produce from the forests that help them to earn some cash income.

Siddis : Negroid people, originally from Africa came to the district as labourers during colonial time. Earlier they depend only on forest for their livelihood. Recently they are practicing agriculture in small patch of land. Even today, NTFP collection both for domestic and commercial purpose is the major occupation for them.

Gowlis: Animal herders recently started to practice agriculture. Mainly depend upon forest for their daily requirements. This community is present mainly in northern part of Uttara Kannada district. Earlier they depend on animal husbandry mainly by selling milk to near by towns. In recent days they have started to practice agriculture.

Havyaks: Agriculture is the major occupation. Experts in growing arecanut and several other spices. This community is using diverse variety of uncultivated foods in their daily life. Usually they live in the hilly tracts of the forest on the land, which is suited to grow arecanut, cardamom, pepper and other spice crops.

Kunbi : Another backward ethnic community depend mainly on forest for their daily needs. Now a days many of them are practising agriculture NTFP collection, agriculture laboring are the other major occupations for them. They live generally in isolated villages near forest. The huts are close to one another usually thatched by areca or palm leaves and by fodder.

4. HISTORICAL PROFILE OF THE AREA.

Change in land and water use: In *Kirwatti* and *Chipgeri* region farmers have shifted from cultivating of food crops to commercial crops like cotton. This has led to the monoculture farming. In the hilly tracts of Western Ghats paddy field is being converted into areca gardens. In up land and dry land paddy is converted into other cash crops like cashew, acacia eucalyptus and teak plantations. Hence area under paddy is rapidly decreasing every year. In the year 1900-01 there were about 75525 hectares of paddy field in Uttara Kannada district (source: statistical hand book of agriculture departments). However, in the year 1995 this area reduced to 4225 hectares! Nearly 94% of paddy land was disappeared.

Change in water use: Earlier, people used to irrigate their farm by natural methods erecting a small *bund* to streams. Nowadays artificial methods of irrigation are followed.

Loss of diversity of food grains:

In the district there were more than 260 indigenous varieties of paddy during 1980;s. (Annual report of Parisara Sanmrakshana Kendra 1995, unpublished). However, in recent years this number is drastically reduced. Paddy varieties like *Ratnachooda*, *Halaga*, *Mattalaga*, *Kempakane*, *Bangar gundu* in hilly region and *Kagga* variety in coastal region are almost in the stage of extinction. What is happening to the paddy is also happening to many other crops like sugarcane, cardamom, pepper, lemon, orange and many other crops. Within the areca orchards there were several varieties of banana, pepper, cardamom, mango, lemon, orange and jack fruit varieties.

Several local varieties of banana were disappeared because of bunchy top disease, where as pepper disappeared from the areca garden due to pepper wilt disease.

An effort in conservation of agro-biodiversity: Rice is the staple crop of people in the Western Ghats. The farmers have carefully selected and propagated those varieties that are suitable for particular ecological situations. Hence there are early varieties, late varieties and varieties suited for low land, upland, dry land and coastal zones. Disregarding this aspect of ecological diversity the government propagated the intensive green revolution technology in the Western Ghats. Modern high yielding varieties of paddy were introduced in the region. *Parisara Samrakshana Kendra* in collaboration with *Navdanya* has launched a documentation and conservation effort of agro-bio diversity in the district. In the first phase an assessment of existing bio diversity was conducted giving emphasis into the paddy varieties grown in the region. During the harvest season indigenous paddy varieties were collected from different regions. A systematic documentation was done after collection of the varieties with the help of farmers. Series of workshops were conducted in village level on biodiversity issues and on importance of conservation of traditional varieties of paddy. Farmers who were keen to get involved in the conservation efforts were selected for regrowing paddy varieties. Sample seeds were supplied to these farmers. The farmers from whose field these indigenous varieties are called as *Samrakhsakas* as they conserved the seed and those farmers who re grow and distributed or exchanged these varieties are called *Utpadakas*. The objective behind this attempt of conservation was to demonstrate the existence of different paddy varieties to other farmers, to make involvement of farmers in the conservation effort. To evolve a farmer based system to conserve and exchange varieties and evaluate the performance of the indigenous varieties and finally to retrieve those varieties which are in the verge of extinction. More than 260 traditional varieties of paddy were collected from farmers and it was re grown in more than fifty farms. However, in long run this initiative has faced several setbacks.

5. RESULTS OF RESEARCH

Uttara Kannada has a rich diversity of edible plants. Traditionally, people have been collecting and using varieties of forest products in their daily life. Not only the weaker sections of the village, but also higher communities collect and use the wild foods. People find them important because of their diverse nature and freshness. In addition to this, they are said to have medicinal qualities. We have listed more than hundred plant species and twenty wild animals that are being used as food from the forest.

Diversity of Edible Wild foods: These edible Wild foods can be sub-classified as below.

1. Leafy vegetables
2. Edible oil
3. Tubers
4. Items used for making health drinks
5. Mushrooms
6. Pickling items
7. Spices
8. Specialized items like stems, powders extracted from wild sources.
9. Wild animals
10. Wild Fruits
11. Toddy

1. Leafy vegetables: These are mainly used for making additives in daily food menu. About 36 items of this kind are recorded from all the clusters. Maximum numbers are used by Havyaks in Jaddigadde cluster, followed by Khare Vokkaligas in Nilkund cluster. Most of these items grow near the houses and many of them even domesticated. Hence needs little time to collect and processes.

2. Edible oil: Seeds of some of the wild foods are collected for extracting oil. These seeds are dried, fried and crushed. Then it is boiled with for water for several hours. Later it is left for cooling to separate oil. Seeds of Uppage (*Garcinia gummigutta*), Kokum (*Garcinia indica*), and Arishina andi (*Garcinia morella*) are used for this purpose. Oil

from Uppage is extracted in Jaddigadde and Nilkund clusters by Havyak communities and by Khare Vokkaligas. Arishina andi is collected and extracted by only Khare Vokkaligas of Jaddigadde and Nilkund clusters. However, in Kirwatti cluster although Uppage is available in sufficient quantity. However, oil is not extracted from the seeds. In Chipgeri cluster, these trees are not at all found.

Kokum (*Garcinia indica*) is collected in all the clusters. Oil extracted from seeds of this plant is used for mainly medicinal purpose. Hence, almost each household extracts a small quantity. It is not used for edible or commercial purpose.

Oil from *Uppage* and *Arishina andi* and are used for frying like other edible oils.

It is stated by some of the villagers that oil from seeds of *Kasaraka* (*Strictomus nux-vomica*) is also extracted in small quantity and used as medicine ; anti microbial and anti fungus.

Sagade (*Schleichera oleosa*), Challe (*Cordia myxa*), Nurukalu (*Buchanania lanzan*), Tari (*Terminalia belerica*), Paragi (*Zyzipus oenoplia*), Betta avare, Basanakatte and Hippali. These are the other species from which oil is extracted.

Khare Vokkaligas extract and use maximum number of oil seeds from wild (11 species). Kunbis and Siddis use seven species as oil seeds. Havyaks, Gowlis and Halakki Vokkals use only two species for extracting the oil. However, the present younger generation doesn't have the knowledge of all these species and how to extract and use the oil form forest species.

3.Tubers: Pirshi, Visuli Bhaji, Kudde Bhaji, Kadu kene gadde, Nore gadde, Chappe Chowlu gadde, Kavale gadde or Pojina gadde, Balli genasu, Panjara gadde, Shatavari, hadegaddeare some of the wild foods collected for edible purposes. All these are the tubers found in the forests. Kunbis, Siddi and Khare Vokkaligas mainly use these.

These are also preserved for further use when they are not available.

4.Items used for making health drinks: Variety of roots and leaves is used for making health drinks. These are believed to have medicinal value. Sogade beru (*Hemidesmus indicus*), Ekanayaka (*Esculenta euciferra*), Kadarisina (*Curcuma zedoria*), Atti (*Ficus glomerata*) and Mase are some of the species the roots or bark of which are used by communities

5. Mushrooms (Anabe, Alabu): These are used by most of the communities for edible purpose. We have listed more than 20 edible mushrooms in tropical forests of Western Ghats in Karnataka, but name differs from place to place. A large number of mushrooms appear during monsoon in tropical forests. They appear particularly in places, which are rich in humus. There are many poisonous mushrooms. Some of the edible mushrooms collected by villagers are,

- Mara anabe (*Pleurotus Osteratus*) A single mushroom makes its appearance on the tree during monsoon. Size is quite big. It is available in lesser quantity.
- Bhogi anabe or Haigana anabe (Pav anabe, hagad anabe): Found on the ground under Bhogi (Haiga) trees (*Hopea wightiana*). This variety of anabe is found in excess quantity, sometimes 2 to 3 cane baskets (15 to 20 kgs) in one place. According to the forest dwelling communities, certain variety of mushrooms like Haiga anabe grows only under some plants and specific condition. Thus, degradation of forest may indirectly affect the availability of mushrooms.
- Halla anabu- A row of mushrooms is found in the forest during monsoon sometimes for a kilometer long.
- Hullu anabu _ (*Entoloma macrocarpum*) grows on the side of the paddy field and on white ant hills. It is delicious.
- Heggalu Anabe or Sidilu Anabe -It is a large kind of edible mushroom. People believe that this mushroom grows when it is thundering in the sky.
- Kallu anabe - it looks like a small ball. Rarely found in the forest.
- Koole anabe- looks like a cricket ball. Outer cover of the cap like portion is thick in size, and this outer cover has to be removed while cooking.
- Gobbara Anabu-grows in the heap of manure or on rotten leaves. It has a bad smell and some people do not like to eat this variety.

Some varieties of mushrooms should have to be boiled before used for cooking. Outer cover of the mushrooms has to be removed for some varieties before eating. Women do the processing. The women of Khare Vokkaliga, Gowli and Siddi community sell them in the towns during market days. The price varies from Rs 25/Kilogram to Rs 60 / Kilogram. There is great demand in the urban areas for wild mushrooms from the forest.

6. Items used for preparing pickle: Pickles are prepared and used regularly throughout the year by villagers of all families of study clusters. Some of the Wild foods used for making pickle are Aramadalu (*Zanthoxylum ovafolium*) Appemidi (Mango), Nelli (*Emblica officinalis*) Jummanakayi, Magali beru and Kouli kayi.

7. Spices: Rampatre, (*Myristica malabarica*) Karibevu (*Murraya koengii*), Dalchini bark (*Cinnamomum spp*) and Dalchini leaves etc is some of the spices collected for edible purpose. All these species are collected for commercial purpose also. Collectors keep a required quantity for their household consumption. Rampatre, Dalchini are mainly collected in Jaddigadde, Nilkund and Chipgeri cluster. Almost all families in the study clusters collect Karibevu for household consumption. However, it is collected for commercial purpose also, in Chipgeri cluster.

Preservation of Wild foods for long-term uses: some of the Wild foods are preserved for use in off-seasons; rainy seasons, when the availability of other vegetables is less. Mango, Appemidi (a special type mango with more sour and oil content), Jack fruit some of tubers etc are preserved for later use. Mango and Jack fruit are preserved in concentrated salt water, in air tightened jars. Seeds of the jack fruit are soaked in Kemmannu a type of soil with water and preserved for several months. Kalale. (Young Bamboo shoot) are in some cases dried and mixed with salt for long term preservation. Tubers of Kesu, Pirshi and some other are also preserved for later use.

8. Specialized items like stems, powders extracted from wild sources:

Stems: Stems of some of the plants are used as vegetables.

Kalale: Young shoots of Bamboo are locally called as *Kalale*. These are sliced and dipped in water for two three days to separate the poisonous content in it. Later it is used as vegetable. Collection and use of these are found in all clusters.

Bennekundige, (*Costus speciosus*) a small plant grows in wet evergreen forests of tropical forests is used as vegetable. Stem along with leaves is used as leafy vegetable and rhizome is used for medicinal purpose. Collection of these is observed in only Nilkund cluster.

Powders: Rhizomes of some of the plants like *Kadarisina* (wild turmeric), *Kacharagadde*, are used for extracting powder. These rhizomes are crushed and mixed with water. Precipitated white material is extracted, dried to get the powder. This powder commonly known as ' *Kove hittu* ' is used as health drink having medicinal value and as food.

It is recorded in PRA that stems of *Baine* (*Caryota urens*), *Taale*, and *Kouli* were also used for extracting the powder. This powder, as some of the villagers recalled, was preserved for months together, for edible purpose. Shiva Siddi, (age 75 years), from Chipgeri cluster, recalls the days of using these powders as the only main food source for about two months in a years.

However, the use of above-mentioned species is a history and is not in common use now. During the study, we found that only twice in Chipgeri and once in Nilkund cluster, people extracted the powder from *Baine*. They have used this as a supplementary food. Water stored in the stems of trees like *Kangalu*, *Garagasa* are collected by making a small cut to the roots of the trees. This water is used for making some special dishes. This is observed once or twice in a year in Jaddigadde cluster.

9. Wild animals: Hunting of wild animals for meat is common among many forest dwelling communities. It is recorded from all clusters. However, maximum quantity is recorded from Nilkund and followed by Chipgeri and Jaddigadde. Maximum dependency is found in *Siddis*, *Kunbis* and *Kharevokkaliga* community respectively. *Halakki Vokkaligas* does go for hunting. However the availability of wild animals in this cluster is less compared to other clusters.

Wild animals and birds collected in the study clusters

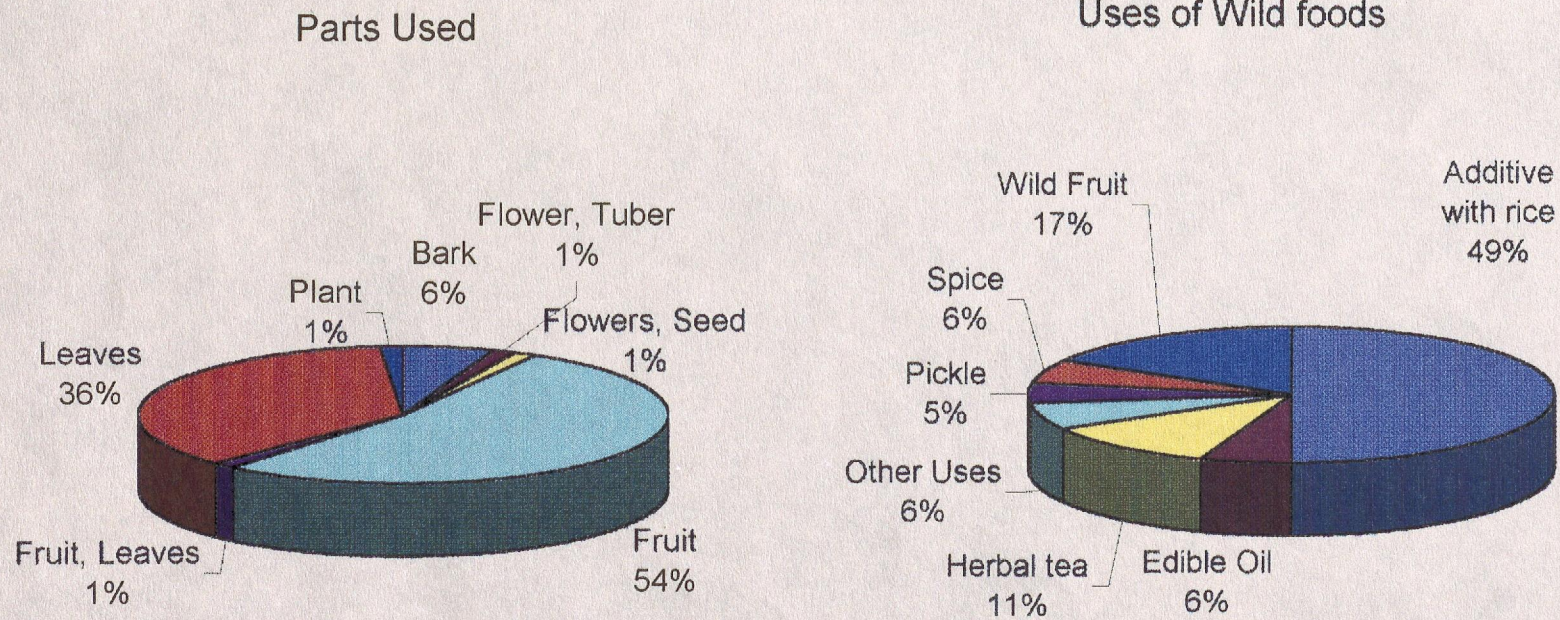
Table 5.1 List of wild animals and birds collected for food in the study clusters

Local name	English name	Scientific name
Kesa alilu	Giant squirrel	<i>Hylopterus sp.</i>
Handi	Wild boar	<i>Sus scrofa</i>
Baraka	Mouse deer	<i>Tragulus meminna</i>
Kadu kuri	Barking deer	<i>Muntiacus muntjak</i>
Mola	Hare	<i>Lepus nigricollis</i>
Kadave	Sambar	<i>Cervus unicolor</i>
Kabbekku	Toddy cat	<i>Paradoxurus hermaphroditus</i>
Punuğu Bekku	Small Indian civet	<i>Viverricula indica</i>
Mullakki	Indian Porcupine	<i>Hystrix indica</i>
Chippakki	Indian Pangolin	<i>Manis crassicaudata</i>
Ame	Turtle	
Uda	Lizard	
Kadu koli	Spur Fowl	
Dhoopada hakki	Emerald dove	
Fresh water fishes		
Crab		

10. Wild fruits: mainly children collect these. Some of the items like Bilimullannu, Guddegeru are sold by some of the villagers in Chipgeri cluster. However, in no other cluster it was observed although these are available. The main reason for this, as revealed by forest dwellers, is lack of market availability and there is no commercial value.

11. Toddy: Toddy is mainly extracted from trees of Palmaceae family, *Baine* (*Caryota urens*), *Taale* and *Ichalu*. *Baine kallu* (Toddy) is extracted in Chipgeri and Nilkund clusters. When the tree flowers, bunches are cut and a pot is tied to collect the Toddy. It

Figure.1.Diverse Use of Wild Foods in Uttara
Kannada District, India



is usually extracted from a tree for about fifteen days to month. About 15 to 20 litres of Toddy is extracted from a matured tree. Men do the collection.

Wild Foods and communities

Khare Vokkaligas:

We studied the food habit of this community in *Nilkund* and *Jaddigadde* region. There is similarity in consumption of food in both the areas.

The staple diet of *Khare Vokkaligas* is rice. Along with rice they prepare *Sambaar* (curry) and soup of vegetables. They hunt wild animals like wild boar for meat. They also catch fish and crab from nearby water bodies. The paddy fields are the main source for catching crabs. Each family has a small home garden around their house in which they grow Brinjal, cucumber, beans, drumstick, Ladies finger. After harvesting paddy, they grow *mage* (striped cucumber) extensively. This vegetable is preserved and used throughout the year. This is the traditional vegetable unique to this region. Potato, Onion, Chillies are the major vegetables bought from the market. They keep a small poultry farm to meet the meat requirements

Khare Vokkaligas collect wild tubers and roots like *Heggenasu*, *Noregenasu*, *Shatavari* (*Asparagus racemosus*) and *Haadegadde*. *Vaatekayi* (*Artocarpus lakoocha*) *Murugalu* (*Garcinia indica*) is collected to use as tamarind substitute. Mango (*Mangifera indica*) *Aramadlu* (*Zanthoxylum ovafolium*) and *Nelli* (*Emblica officinalis*) are collected for pickling. They collect the seeds of *Ippe* (*Madhuca longifolia*), *Murugalu* (*Garcinia indica*), *Uppage* (*Garcinia gummi-gutta*) and *Arishinandi* (*Garcinia morella*) and extract oil from the seed. They use eleven different species for extracting the oil, details of which are given earlier. These vegetable fats are used in preparing recipes and to fry the food items. They collect *Nira* from *Ichalu* (*Phoenix sylvestris*) and *Toddy* from *Baine* (*Caryota urens*). Honey is collected from wild colonies of *Apis dorsata* and *Apis cerana*. They consume the honey as well as sell them in the nearby market. *Kharevokkaligas* collect a vast number of mushrooms during monsoon for consumption. Some people do sell it in the near by market.

Mase soppu, Huli gibsu or Mullu kouri, Dadasalu, Nurukalu(Buchanania lanzan) Bili kouri, Bili mulle bark, Atti(Ficus glomerata) Sugandhi balli(Hemedesmus indicus) are used in preparing health drink.

Children of Khare Vokkaliga community and wild food:

The children of *Khare Vokkaliga* community live near the forests and they interact intensively with plants. From childhood they learn to collect wild fruits from forests. While interacting with the Primary School children of Hukli village in Sirsi Taluka, in Uttara Kannada District, these children came out with a list of 54 species of fruits and items collected from the forests in just ten minutes. This shows the knowledge of wild food even among young children who live in midst of the forest. These children are also able to identify the wild food resources in the forest. This reveals that there is awareness as well as utility value of wild food among the children who live far away from the urban areas. However, we have observed that the knowledge of wild food amongst school children that live in city or near the city is comparatively less. (Number of wild food species listed in these schools reveals this factor).

Children collect large varieties of wild fruits. They include *Nelli(Emblica officinalis)*, *Sampigehannu, Hulimajjigehannu, Nurukalu(Buchanania lanzan), Nerlu(Syzigium cumini), Dasavala (Ixora coccinea), Guddegeru(Semecarpus ancardium), Bikke(Gardenia gummifera), Dyavvanigehannu(Garcinia pictorius), Murugalu(Garcinia indica) Paragi(Zyzyus oenoplia), Bilimullahannu(Zyzyus rugosa), Ichalu(Phoenix sylvestris), Haligehannu, Ankolehannu(Alangium salvifolium), Mavu (Mangifera indica), Halasu(Artocarpus heterophyllus), Hebbalasu(Artocarpus hirsuta), Challe (Cordia myxa)* and many more.

Havyak

Havyak are the only ~~non~~ vegetarian community taken for the study in Jaddigadde and Nilkund clusters. They use more number of leafy vegetables than any other community. These vegetables are mainly used as side dish along with the staple food (rice). During our study we have seen many Havyak women who listed more than sixty uncultivated food within an hour of discussion. We have listed following species which are used in

making *Tambli*: Baje (*Acorus calamus*), Bilva (*Aegle marmelos*), Basale (*Basella rubra*), Bacchale soppu (*Boerhavia diffusa*), Patpatle gida (*Caesalpinia*), Kakke (*Cassia fistula*), Tagate (*Cassia tora*), Elavarige (*Cassia sophera*), Ondelaga (*Centella asiatica*), Sambaar soppu (*Coleus amboinicus*); Bennekundige (*Costus speciosus*), Ambekombu (*Curcuma amada*), Nela mucchala (*Elephantous scabre*), Nelli (*Emblica officinalis*), Ilikivigida (*Emelia sonchifolia*), Nela nekkare (*Hedyotis auricularia*), Nachike (*Mimosa pudica*), Nelanimbe (*Naregamia alata*), Anekodu (*Oroxylum indicum*), Agase, Mavu (*Mangifera indica*), Kannekudi (*Polygonum chiensis*), Chakramuni (*Souropus androgynus*), Nerlu (*Syzygium cumini*) and Gandhada kudi (*Santalum album*),

Following species are used in preparing *Sambaar*: Suvarna gadde (*Amorphophallus campanulatus*), Basale (*Basella rubra*), Sambaarsoppu (*Coleus amboinicus*), Bamboo shoot, Halasu (*Artocarpus heterophyllus*), Panjara gadde, Hippe (*Madhuca longifolia*), Sihi tonde (*Melothria angulata*), Maadahaagalu (*Momordica diosica*)

The species which are used in making pickles: Aramadlu (*Zanthoxylum ovalifolium*), Nelli (*Emblica officinalis*), Mavu (*Mangifera indica*), Jummana kayi, Sandhu balli (*Cissus quadrangularis*), Bamboo shoot, Kouli (*Carissa carandus*),

Health drink is prepared from Atti (*Ficus glomerata*), Sugandhiballi (*Hemidesmus indicus*), Kove gadde, and Kaadarisina (*Curcuma zedoria*).

Siddi

Siddis are the one community who mostly resides in forest areas farming small plots of forest land. Most of them earn their livelihood through agricultural labour and other allied activities like NTFP (Non Timber Forest Produce) collection. These communities used to live in the forests by hunting tortoise, wild hens, large wild chameleons and their eggs and other animals. They eat jack fruit and wild tubers available in the forest. Some families collect minor forest products like Seege (*Acasia concinna*), soap nut, Uppage (*Garcinia gummi-gatta*), Dalchinni (*Cinnamomum* spp) Murugalu (*Garcinia indica*), Honey and cane. They also prepare cane chairs, cane containers and other articles. These articles are locally sold. They go to hospital only for cure of chronic diseases of severe

nature. According to them herbs available in the forest are good compared to modern medicine without any side effects. However, younger generation is neglecting these herbs due to availability of modern medicinal facilities and negligence of the traditional herbal medicine.

Halakki Vokkals

The dependence of Halakki Vokkals on wild food resource is less compared to other communities. One of the main reasons is the geographic location of the study cluster itself. Since the Murooru cluster is located in the coastal region the forest resource are less than other clusters. However they collect a small quantity of following species. Panjara Gadde (tuber), Ambekombu, Maadahaglu, Marakesu, Jummana kaayi, Hunise, Murugalu (*Garcinia indica*) Kalale (Bambo Shoot). Different varieties of Mango, Goota Genasu, Nelli (*Emblia officinalis*) Vaatekayi (*Artocarpus lakoocha*) Curry leaf (*Murraya koengii*), Kusumale (*Ixora coccinea*), Tagate (*Cassia tora*) Elavarige (*Cassia sophera*) Ondelaga (*Centella asiatica*) Kesu (*Colocasia Species*).

Besides, almost all Halakki Vokkal families grow different vegetables in their home garden. They sell a major quantity in the nearby Kumta market. Selling of vegetables gives substantial money for the livelihood of these Communities. Vegetables grown in their home garden are; Potato, Tomato, Sabbasige, Nugge, Hongenne soppu, Mentiyada Soppu, Moolaugi, Bitter gourd, Melons, Chilly, local variety of Onion, Snake gourd, Cady finger, Brinjal, Beans varieties, Beet root, Cabbage, Basale (*Basella rubra*) Kutoumbari leaves, sweet potato Pudina, Tonde, and many others.

Kunbi Community

The Kunbi community is another major forest dwelling community in Uttara Kannada district depends on a diverse species available in the forest for their food requirements. Involvement of women and children is found to be more in collecting the wild foods including the wild fruits. However, men are some times engaged in collecting the tubers and hunting the wild animals.

Jummana kayi, Keshina donne, Halasu (*Artocarpus heterophyllus*), tender bamboo shoot, Marakesa, Kesa (*Colocasia*) Manda gadde, Anabe (mushrooms) are the important species

collected for preparing Sambaar. Tender leaf of Baine tree (*Caryota urens*) is used in preparing curry and Sambaar. The inner portion of the Baine stem is extracted and powdered to use in preparing the Roti and Manni.

Dosa and Idli are prepared by leaves of Bili Dasavala, Ganape kayi (*Entada phasiolodies*) inner stem of the Tali tree (palm tree).

Mango (*Mangifera indica*), Nelli (*Emblica officinalis*), Kouli (*Carissa carandis*), Jummama Kayi and bamboo shoots are pickled and they prepare Tambli by Mango, Ondelaga (*Centella asiatica*) Elavarige (*Cassia sophera*) and Kanne Kudi (*Polygonum chinensis*).

Children collect several varieties of fruits from the forest. They are Murugalu (*Garcinia indica*), Sampige, Parige (*Zyzipus oenoplia*), Bile mullannu (*Zyzipus rugosa*) Ichlu (*Sylvestris pheonix*) Halige hannu, Durukalu (*Buchanania lanzan*) Nerlu or Jamala (*Syzigium cumini*), Dadasalu, Hebbalasu (*Artocarpus hirsuta*), Halasu (*Artocarpus heterophyllus*) and Kouli (*Carissa carandus*).

Earlier, they were extracting Nira from Baine (*Caryota urens*) and Ichalu (*Sylvestris pheonix*) plant, which was now stopped.

Wild animals: Kunbi community hunt wild animals for consumption. They are, Indian hare, wild boar, Kabbekku (Small Indian civet), Chippakki (Indian pangolin) Aame (Turtle) and Kadukoli (Spur fowl), crabs from water bodies and paddy fields and fish from river bodies.

Gowlis:

Gowlis were nomadic pastoralists with animal husbandry as the main occupation. However, now they have settled in the interior forests and have started cultivating land.

The nomadic life of *Gowli*'s have been replaced by sedentary life. Their main occupation was animal husbandry. However, it was not sufficient to meet their food requirements. Naturally it made them to depend partially on the forests. Their milk and milk products were used for either cash earning or bartering it with other required items or goods, like rice and ragi, which are their chief source of food items. They also collected numerous forest products to prepare different type of food items.

As they are no more nomadic, they lost control over pastoral habitat. Permanent settlement allowed them to gain sufficiency in food items. Thus, they became less allured towards forest resource. Today most of them grow paddy. Rice is gaining more popularity than Ragi, (millet). The rice replaces numerous drought resistant Ragi or millet crop. They are losing many traditional Ragi varieties at a faster rate.

Consumption of wild vegetables

Gowli community collects following wild vegetables:

Kalale: Bamboo shoots are highly popular among this community. They use it for different purposes. Almost all kind of items requires *kalale* during rainy season. It is a chief additive for *Rasam* and *Sambar*. Various kinds of 'chutney' are also prepared from bamboo shoots. Pickles are prepared from the bamboo shoot. The availability of bamboo shoots has become less because of the deforestation and cutting of bamboo poles.

Madu Hagala or spine Guard (*Momordica dioica*): It is a tasty wild vegetable resembling bitter guard in many respects. Once it was abundantly found in wild, however its availability is decreasing. Its leaves and fruits are used to prepare different kind of items. People relish the taste of this very much but it is not available in this area.

Kesu (*Colocacia*): This green leafy vegetable is consumed widely. It is main constituent in *Sambar* or *curry*.

There are the following varieties of *colocacia* or *Kesu*

Mara kesu: The *colocacia* that grows on the trees. This is collected only during rainy season. Curry and Sambaar are made from this plant.

Kesu: The leaves as well as the tuber are used as wild vegetable. This is also grown in the kitchen garden.

Kari kesu: The colour of this *colocacia* is dark green. It is used as vegetable. Also grown in home garden.

Javali: It is a wild legume crop, which was available during winter season. Many of them are cultivating this, it produces beans, which is used to prepare different kind of food items. Availability of this in the forests is rare, but *Gowlis* grow them near by their house.

Manda: A tuber crops available in the forests. Perhaps this may be wild colocacia (*Panjara or Suvarna Gadde*) or similar to this which gives highly nutritious tubers. They use it like sweet potato. They use it during drought years as food crop. It has become rare.

Mushroom: They are using wide range of mushrooms that grow naturally in the forests like small mushroom, sound mushroom, big yellow mushroom etc. Mushrooms are used to prepare curry and in making Sambaar.

Kalloli: A leafy vegetable found in the forest during rainy season. It is used for preparing different *curries*, which is consumed along with rice.

Cholun (*Challu*): A leafy vegetable available throughout the year. Now it has become rare due to destruction of natural forests.

Storage Practices of Vegetables (in general all communities)

While harvesting vegetable seeds for storage, it is harvested on 'Amavasya'. There is a belief among farmers that seeds, fruits harvested during full moon day is more susceptible to pest attack. They also feel that in vegetable the good seed material should be taken from the first harvest.

The vegetable seeds are stored in dry place, usually above the cooking place where the smoke keeps the seeds intact. Many farmers store the vegetable seed after drying the whole vegetable. For example the Ladyfinger, beans, Heerekai is stored in the vegetables, after drying them. In order to store vegetable seeds there are special vessels:

'Ande' A vessel made from bamboo. Mostly the bamboo hallow is made use for storing seeds and it is kept in a dry place.

Halagumbala (A special melon). The outer cover of this fruit is used as storage vessel.

'Gadige': A vessel made from mud. This is used to store vegetable seed. The seeds are first tied in a cloth bag and then they are kept in the Gadige. This is kept in the place where smoke keeps it warm.

Some other crops and vegetables like Mage (a special cucumber) Mango seed and jackfruit are also stored using traditional knowledge. Mage is an important vegetable

grown in the region. After harvesting it is tied around by banana fibre and hung over wooden beam inside the house. By this method is stored nears for 18 months.

Mango: Mango fruits are stored for long duration (for a month) by applying lime on it. Whereas to make Midigayi (used for pickles) and Kosugayi (used for making recipes) the unripe mango fruits are dipped in salt water for a week. Stone is kept on it to give sufficient pressure. This 'Midigayi' is conserved for one or two years. Where as Kosugayi could be conserved for one year.

Jack Seed: Ordinary red soil (Kemmannu) is coated to jack seed and this prevents rotting of jack seed. Cow dung is applied to Gove kayi another type of guard and pasted in to mud walls of house or cattle shed and seed preserved for the coming year.

The corner of the house in which the smoke of the Chula or oven goes out provides better place for preservation of the seeds. Women always keep several vegetables seeds tied up in a cotton cloth and hang it over the oven where the smoke of the Chula goes out.

(Traditional Birth Attendants)
Interview of Midwife: wild food for maternal care.

Table 5.2. Communities and name of the women interviewed.

Community	Name of the mid wife <i>(Traditional Birth Attendants)</i>
Khare Vokkaliga	Gange Timma Gowda Kalase, Taluk : Sirsi
Siddi	Subbi Siddi Kerehosalli, Taluk: Yellapur
Kunbi	Parvati Kunbi, At: Kerehosalli Taluk: Yellapur Devi
Halakki	Fakir Gowda (age70), BommiGanapu Gowda (age57) Karkimakki, Murur, Taluk: Kumta
Havyak	Sulochana Krishna Hegde ,Keregadde, Vanalli, Taluk: Sirsi

Nutritive food is very much essential during pregnancy of a woman as well as after childbirth. The use of wild food gives sufficient nutrient during this period. To know the different wild foods used during pre natal and after birth we have interviewed midwives belonging to six communities.

The study reveals that, in villages though the women go for nursing home for delivery has increased, the use of uncultivated foods during this period has not diminished.

more than 30 different species both cultivated & uncultivated are used in this period.

Women use the following species during pregnancy period and after birth:

1. Shatavari or Halavu makkala gadde (*Asparagus recemousus*): The tuber of this small creeper is taken and made into a kind of 'lehyam' or decoction. This is generally prepared by many midwives and given to pregnant women. This increases the milk production of women and is a general tonic as well. Besides it is helpful in urinary problem and to control the fever. This lehyam or decoction is given for 3-6 months during pregnancy and three months after child birth.
2. Amruthballi or Uganiballi (*Tinospora cordifolia*): Decoction is prepared using Amruth balli along with ginger, Hippali, white pepper and other spices. This is normally given during pregnancy for two to three months. We have noticed that only women from Havyak Community use this decoction.
3. Kannekudi (*Polygonum chinensis*): A famous wild vegetable used ⁱⁿ ~~is~~ preparing several dishes. Many communities in their home garden domesticate this species. Khatney and Chutney is prepared from tender leaves of this plant. The chutney is prepared along with white pepper and chilli. This is used along with staple ^{fo}rd rice one or twice daily during after birth period for two to three months. All communities except Halakki Vokkals use this. The leaves have digestive property.
4. Elavarige or Kasamarda (*Cassia sophera*): Khatney and Tambli are prepared using tender leaves of this plant similarly as *Polygonum chinensis*. The Khatney is given after birth where as Tambli is given during pregnancy. This is helpful in urinary problem, Asthma and skin diseases. Villagers give root of this plant during delivery time, which helps in smooth delivery ^{ease}.
5. Bennekundige or Arthikundige (*Costus speciosus*): Lehyam is prepared by the tuber of this plant. This is given after birth for 4 to 5 months. It is a general tonic, helpful to cure cough, fever, urinary disorder and heart diseases. Mainly Havyakas use this 'Lehyam.'

6. **Mase:** Both the leaves and bark are used in preparing a kind of health drink. The leaves are gently crushed and mixed with water. A little jaggery and salt is added to this mixture. Similarly the bark is rubbed and immersed in water for some times and then used in preparing for drink. This is said to have cooling effect used occasionally during pregnancy. Khare Vokkaliga community uses this.
 7. **Mullukouri or Huli gibsu:** The leaves have small spines and flower has greenish colour. Curry is prepared from the leaves, which is said to be cooling effect to pregnant women. This is used only in certain special conditions.
 8. **Souli or Chagli (Red ant):** Decoction and Khatney are prepared using red ants, pepper and other species. This is given daily for one to two months after pregnancy. This practice is found in Khare Vokkaliga, Kunbi and Siddi community.
 9. **Ondelaga or Brahmi (*Centella asiatica*):** Entire plant is used in preparing decoction and in Tambli. This is given during pregnancy as well as during after childbirth.
 10. **Honey:** Honey from *Apis cerana* is used as food as well as medicine during pregnancy period and after birth.
- Nela gonagalu gadde, Hippali, Gandha menasu, Kadu badane beru, (wild brinjal) Oudala leaf, Nutmeg, Kayijeerige, Tondesoppu, Nanjatte beru, Lemon, Jeerige, Jaggery, Kasuvina Balli, Turmeric, and Kare mullehannu (*Zyzipus oenoplia*) are used as medicine by mid wives in Uttara Kannada district.

Cultural, Ritual aspects and wild foods:

The use of plant species is commonly found in all communities during festivals and worships. The main reason behind this practice is of conserving different species and hence the bio diversity. We have noticed that hundreds of species are being used in some festivals like *Bhoopooja* and *Ganesh* festival. *Deepawali*, *Navarathri*, *Tulsi pooja* are the other festivals in which maximum number of species are used.

Honey is commonly used in most religious functions. We have listed the wild food species that are used in different religious aspects.

Table.5.3. Wild species used in cultural ritual aspects.

Festival	Wild foods used
Ganesh festival	Bikke (<i>Gardenia gummifera</i>) Halasu (<i>Artocarpus heterophyllus</i>) Maadahagalu(<i>Momordica diocia</i>) Gavaldekaayi
Tulsi pooja	Nelli (<i>Emblica officinalis</i>)
Dipawali	Kavale gadde (<i>Pojina gadde</i>)
Bhoopooja	Leaves of more than 75 species (Hattambarive, Doorve, Karaveera, Vishnu krantha, Mandara, ^{Lakki} lki , Bilva)

Gender and Wild Food

The results of the study shows that the women dominate the collection and processing of wild foods.

Processing of major type of wild food is entirely done by women. At a given time they spend nearly 25 hours in processing of edible oil and special item like powder from Kadarisina (*Curcuma zedoria*). Where as men spends five hours in processing of wild animals like wild boar and crabs.

Wild fruit is collected, processed and eaten by children. However, men go for collection of edible oil, wild animals, wine and spices like Rampatre (*Myristica malabarica*) and Dalchinni (Cinnamon). Crabs and fresh water fishes are all collected by both men and women. Leafy vegetables, tubers, mushrooms are mainly collected by women. Processing is entirely done by women members of the family. Women do preservation of wild food for future.

Use of forest products, a changed scenario:

Commercialisation of certain forest products has brought change in use of certain products. For example Uppage (*Garcinia gummigutta*), the fruit rind has got commercial demand since last twenty years. Before that only seeds from the fruit was collected for extracting the oil. This oil

was used for frying the dishes and used along with certain sweet dishes. In some communities it was so famous that people preferred to use only this oil for particular sweet items. Initially, in 1980's the price per kilogram of dry rind was Rs, three to five. However, in 1990's price went up to Rs, 100 per kilogram. This has attracted more people to harvest this product, which resulted in over exploitation. Today hardly any people are found in using this oil for edible purpose. Similarly local use of those products has reduced which have high price and commercial demand. Murugalu (*Garcinia indica*), Nelli (*Emblica officinalis*) Rampatre (*Myristica malabarica*) and honey are among those in this list.

Domestication of wild food species: Domestication process started long back and was initiated by women. Women planted several wild species in their kitchen garden, which they find tasty and important so that they could use it regularly. Karadi soppu, Kannekudi, Elavarige, Ondelaga, Kadarisina, Bennekundige are some of these varieties.

Domestication of some other species is taking place, which are in the verge of extinction in recent years. Efforts are made to grow the Murugalu, Uppage, Madahaagalu and some other species.

Results of the Questionnaire;

Analysis of the data collected through questionnaire reveals that total number of wild food species used by any community in any cluster is more compared to vegetables purchased from the market (fig.4). However the quantity of vegetables purchased from market would be more than that of the wild foods.

Figure 2. Gender and Wildfood Collection

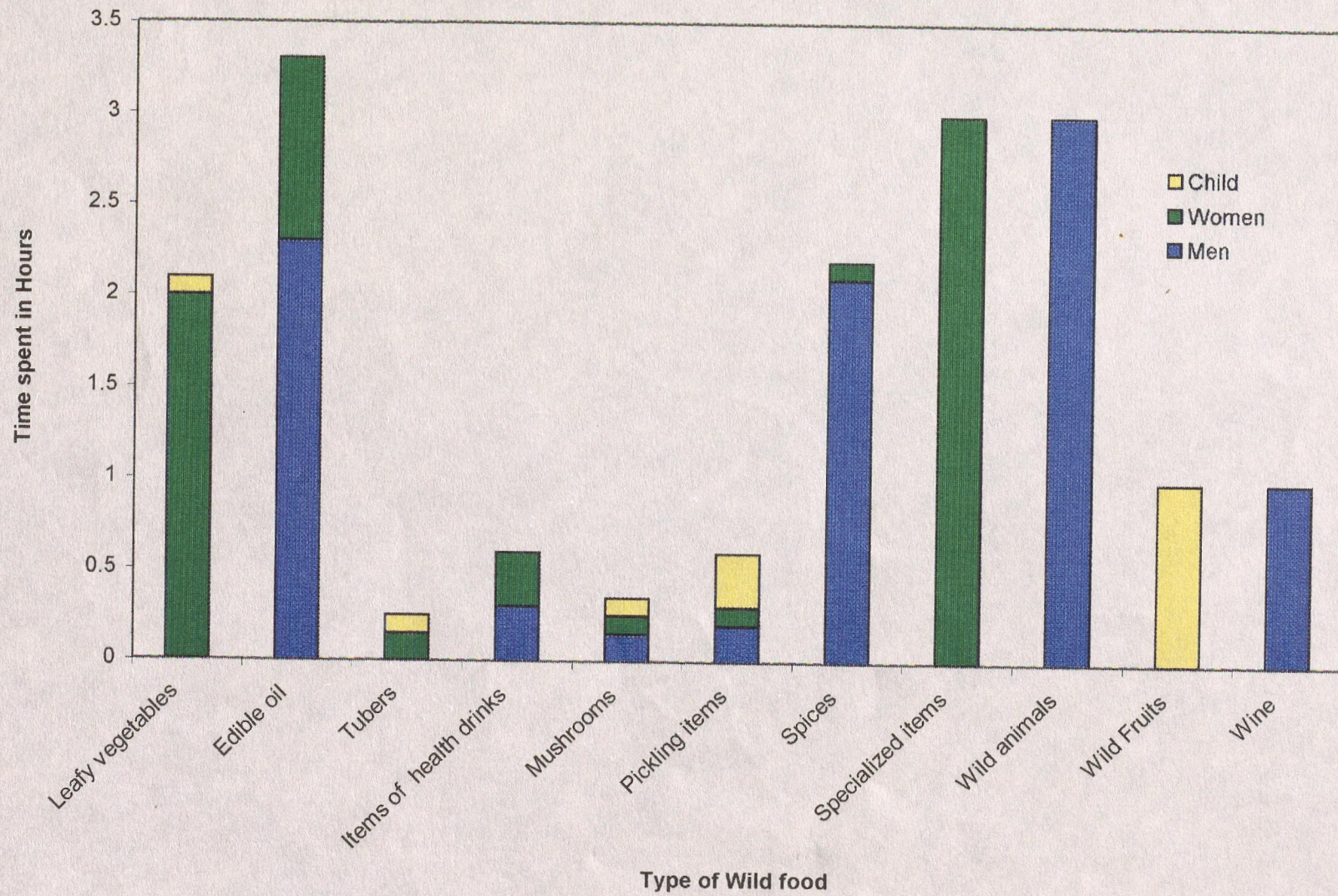
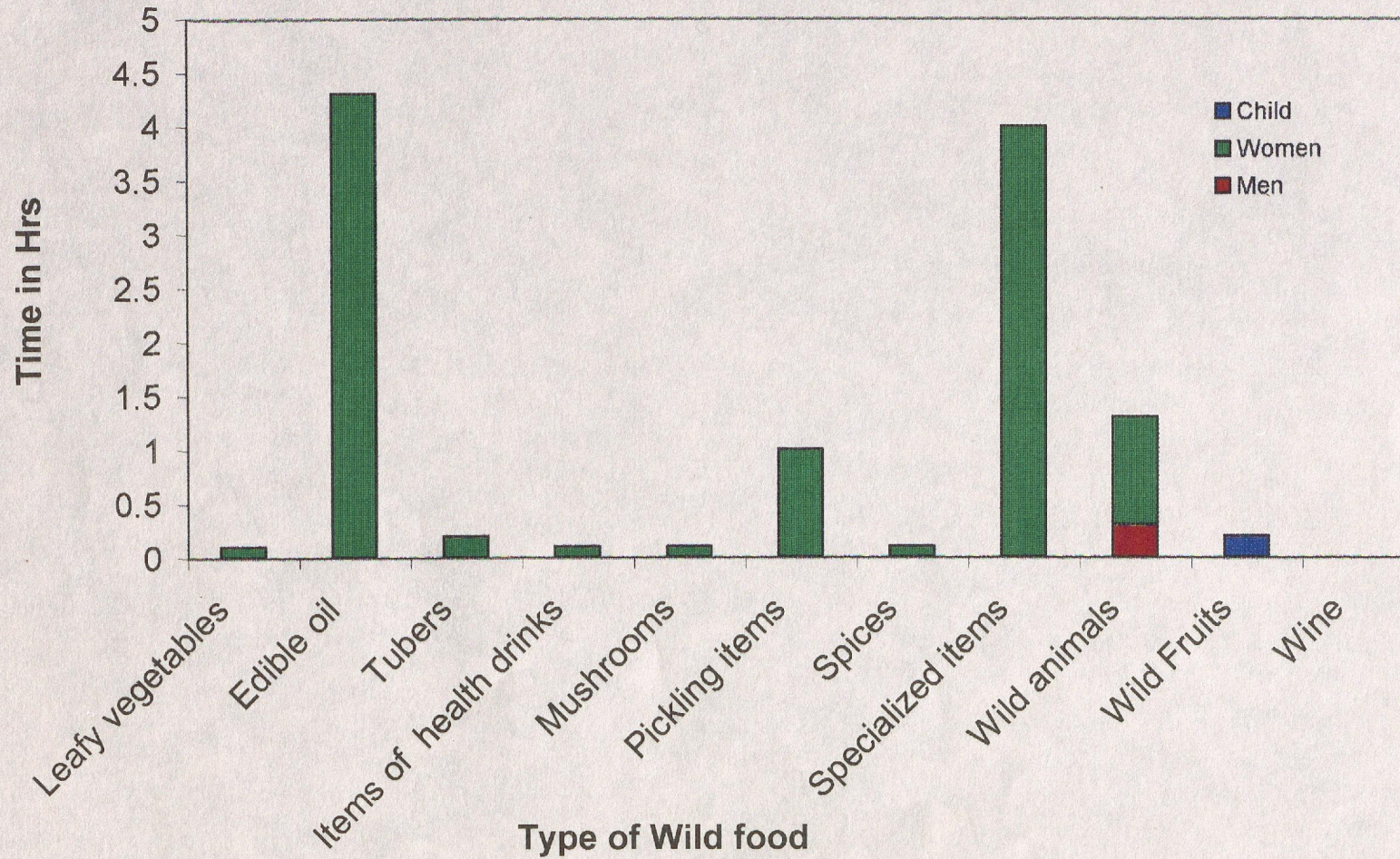


Figure.3 Gender and wildfood Processing



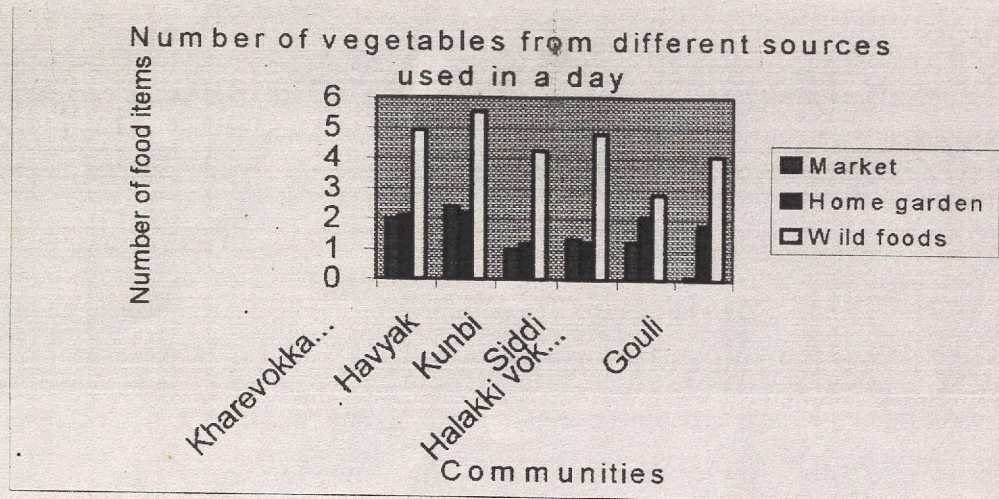


Fig. 4 Number of vegetables from market, home garden and from wild food used in a day by different communities

Havyak Community is using ^{6.58} wild foods in a day on an average, which is highest for all communities. They use ^{two} 2.18 species from the home garden and ^{2.4} 2.4 species from the market in a day. Khare Vokkaliga Community stands second highest in using the wild foods. They use ^{4.95} 4.95 species in a day. They use ^{2.4} 2.4 vegetable species from the home garden and ^{1.28} 1.28 from the market. Dependency of wild food seems to be less for Halakki Communities (^{2.3} 2.3 species per day).

When we consider the number of market vegetables the Gowli Community is less dependent on it. They use hardly ^{one} 0.1 species from the market ^{once in ten days}. However, Havyak Community uses ^{2.4} 2.4 species from the market in a day, which is the highest among all communities.

The dependence of people belong to different sections of the society on wild food is more or less same.

Jackfruit: Diversity of within species and diverse use.
Mango: " "

CHAPTER 6. DESCRIPTION OF SOME WILD FOODS AVAILABLE IN UTTARA KANNADA

1. Name of the plant: **Ondelaga**

Botanical Name: *Centella asiatica*, (APIACEAE)

Other name: Brahmi, Mandukaparni (Sanskrit) Urige, Mandaarjade (Kannada), Indian pennywort (English), Brahma Manduki (Hindi)

Brief description: It is a creeping aromatic herb found throughout India particularly in moister places. Plant grows to a maximum height of one to two feet. Leaves have green colour throughout the year and circular in shape.

Availability period/season: Throughout the year

Parts used: Entire plant

Type of preparation: Used in preparing Tambli, Gojju, Paladya and Kashaya

Other uses: Useful as an antidote against cholera, as diuretic alternative and tonic. It is also said to improve memory, promotes growth of hair. Hair oil is prepared using this plant.

2. Name of the plant: **Kodasa**

Botanical name: *Holarrhena antidysenterica* (APOCYNACEAE)

Other name: Kutaja (Sanskrit) Ivory tree (English) Kurchi (Hindi)

Brief description: It is a small common tree found throughout tropical deciduous forests in the country. Tree grows up to a height of twenty to twenty five feet. Flowers white in colour appears during April and May.

Availability: April to June

Parts used: Flowers and pods.

Type of preparation: Flowers are used in preparing Tambli and chips. Tender pods are used in preparing the Tambli.

Other uses: Leaves, bark and seeds are locally used in the treatment of dysentery, bark and seed as stated to be blood purifier. Bark astringent, anthelmintic, stomachic, antipyretic, tonic and anti dysenteric, used in diarrhea.

3. Name of the Plant: **Pudina**

Botanical name: *Mentha arvensis* (LAMIACEAE)

Other name: Puhina (Sanskrit) Japanese mint (English)

Brief description: It is an aromatic herb with ovate leaves, grows in temperate regions, cultivated elsewhere.

Availability: Throughout the year

Parts used: Entire plant

Type of preparation: An additive with rice, Gojju and Tambli are prepared using the leaves.

Other uses: Source of Peppermint oil, used in treatment of diarrhea, cough skin disease, headache, and fever, plant stimulant, stomachic, carminative, used for analyzing nausea and flatulence

4. Name of the plant: **Ankole**

Botanical name: *Alangium salvifolium* (ALANGIACEAE)

Other name: Ankola (Kannada) Akola (Hindi) Sage leaved Alangium (English)

Shodhanam (Sanskrit)

Brief Description: It is a common plant in the dry tropical forests. Tree is small in size with light gray colored bark. Flowers appear during March and April. Fruits are small round with red colour and appear in July, August month.

Use: Fruit

Other uses: Seed oil and germinating seedlings are stated to be used for witch- work.

Leaves and seeds are used in skin disease. Root bark used in cutaneous troubles, astringent, anthelmintic, purgative, emetic and diaphoretic. Leaves hyposhyaemic. Fruits are acidic and astringent. Seeds used in hemorrhages.

5. Name of the plant: **Arishina Andi**

Botanical name: *Garcinia morella*

Other name: Arishinagurige (Kannada) Ceylon gambogi (English) Gotaghanba (Hindi)

Brief description: It is a medium sized tree found in evergreen forests of India. Fruits are globose of the size of a plum.

Use: A substitute for ghee, used in cooking

Parts used: Fruit

Other uses: Abdominal disorders, wounds. Used in dropsical affections, obstinate constipation, and cerebral congestion when rapid lowering of blood pressure is desired.

6. Name of the plant: **Armadlu**

Botanical name: *Zanthoxylum ovafolium* (RUTACEAE)

Other name: Petlakayi (Kannada)

Brief description: It is a medium sized deciduous tree found in Western Ghats of India. Tree grows to a maximum height of 40 to 50 feet. Unripe fruits are green in colour appear during April to June.

Parts used: Fruit

Uses: Used as spice and for pickling

Other uses: the seeds are the source of an essential oil

7. Name of the plant: **Ashwatha**

Botanical name: *Ficus religiosa* (MORACEAE)

Other name: Ashwatha (Sanskrit) Arali (Kannada) Peepul tree (English)

Brief description: It is a large tree, found wild throughout India and grown as an avenue tree.

Parts used: Fruit bark, Tender leaves

Use: Used in preparing Tambli and decoction

Other uses: Bark, leaves and roots give red dye. Bark used in skin troubles, cough.

Infusion of bark used in ulcers and skin troubles.

8. Name of the plant: **Athi**

Botanical name: *Ficus glomerata* (MORACEAE)

Other name: Oudumbara (Sanskrit) Cluster fig (English) Gular (Hindi)

Brief description: It is a medium sized tree commonly found in deciduous forests. Leaves ovate: oblong or elliptic-lanceolate. Figs on short tubercles, reddish, obovoid.

Parts used: Fruit, Tender leaves bark

Use: fruit is edible. Tender leaves used in preparing decoction Tambli

Other uses: Bark yields tannin

Other use: Bark given to cattle in rinderpest disease leaves used in bilious affection, root in diarrhea and diabetes, fruit stomachic, used in hemophysis, piles and diarrhea

9. Name of the plant: **Baine**

Botanical Name: *Caryota urens* (ARECACEAE)

Other name: Mada, Dirgha (Sanskrit) Toddy palm (English) Jiluguchittu (Telugu)

Brief description: It is a tall palm, lofty trees with smooth trunk. Flowers in long pendulous inflorescence. Fruit red to black. Tree grows to a height of 50 to 60 feet found in evergreen forests of Western Ghats.

Use: Toddy is extracted from the tree. Powder extracted from the stem is eaten. Some tribal uses the dried fruit for chewing purpose.

Other uses: Used to make several agriculture implement, fiber. Toddy is considered as tonic.

Bark is used in treating skin disease, fever and Scorpion sting poisons.

10. Name of the plant: **Bhore, Egachi**

Botanical name: *Zizipus mauritiana* (RHAMNACEAE)

Other name: Karkamadhu, Ajapriya (Sanskrit) Chines date (English) Bordi (Hindi)

Brief description: It is a small tree with a spreading crown and stipular spines growing wild all over the tropical forests in the country.

Use: Fruit is edible.

Medicinal uses: Used in Dysentery, Skin diseases. Fruits said to have cooling effect, anodyne, and tonic, kernels seedling, used to stop vomiting, seeds are given in diarrhea.

11. Name of the plant: **Bikke, Kambimena**

Botanical name: *Gardenia gummifera* (RUBIACEAE)

Other name: Dikkamali (Sanskrit) Gummycape jasmine (English) Dikamali (Hindi)

Brief description: It is a small tree commonly found in south India in deciduous forests. Normally grows in dry and degraded land in which no other trees are found. Bark is brown in color, leaves sessile, obovate. Flowers large, yellow or white occur during March, April. Fruit ovoid, fleshy ripe in June, July.

Use: Fruit is edible, Flavoring agent.

Other uses: Source of oleoresin. The gum oleoresin obtained from the bud is used medicinally as carminative, stimulant and in dyspepsia. Used in treating nervous disorders, diarrhea, intermittent fever, skin disease piles, ulcers.

12. Name of the plant: **Bilimullehannu, Bommarlu**

Botanical name: *Zizipus rugosa* (RHAMNACEAE)

Other name: Badara (Sanskrit) Suran (Hindi) Perripamu (Telagu) Kattilandai (Tamil)

Brief description: It is an evergreen spiny straggling armed shrub. Leaves broadly elliptic, denticulate. Flowers in pubescent panicles, petals absent. Drupe globose, white when ripe.

Parts used: Fruit

Availability: March to May

Medicinal uses: Root barks and fruit used in bronchial asthma, diarrhea aphrodisiac, and carminative, digestive.

13. Name of the plant: **Bilvapatre**

Botanical name: *Aegle marmelos* (RUTACEAE)

Other name: Mahakapith, Neela mallika (Sanskrit) Bel (Hindi) Bael (English)

Bilvamu (Telagu) Vilvam (Tamil)

Brief description: It is a medium sized tree found in tropical and sub tropical forests of the country. Tree has corky, soft, grayish bark and axillary straight spines. Flower greenish, fruit large, globose and ripens during June, July.

Parts used: Tender leaves, Fruit pulp

Use: Fruit pulp is eaten. Tender leaves used in making Tambli.

Other uses: The mucilaginous substance secreted round the seed is used as an adhesive varnish and white washing stem. Used in treatment of intermittent fever, dysentery.

Venereal diseases, digestive and abdominal disorders, eye diseases, vomiting, and dysentery, Piles.

14. Name of the plant: **Challe**

Botanical name: *Cordia myxa* (BORANGINACEAE)

Other name: Bahuvaraka (Sanskrit) Indian cherry (English) Chokaragonda (Hindi) Shelvant (Marathi) Nuruvilli (Tamil) Sinnanakkeru (Telugu)

Brief description: It is a small tree with crooked trunk found in deciduous forest of country.

Flower is white in colour and appears during April and May. Fruit appears in the month of June to July. Colour of the fruit is yellow or saffron.

Parts used: Fruit

Use: Fruits are mucilaginous, sweetish, and edible

Other uses: Used in diseases of chest and urinary passages. Expectorant, diuretic, fever, worm infestation, coughs wounds and skin diseases.

15. Name of the plant: **Doddachalle**

Botanical name: *Cordia tomentosa* (BORANGINACEAE)

Other name: Shleshmataka (Sanskrit) Sebesten (English)

Brief description: It is small deciduous tree with white flowers. Leaves ovate drupe ovoid. Fruit appears during June-July.

Parts used: Fruit

Use: Fruits are eaten

Medicinal use: Used in bronchial affections, expectorant and astringent. It is used in fever, worm affection, boils wounds, leprosy, pain, poisoning, skin diseases, cough, and dental disorders.

16. Name of the plant: **Dalchinni**

Botanical name: *Cinnamomum zeylanium* (LAURACEAE)

Other name: Tamul patra (Sanskrit) Cinnamon (English) Dalchini (Hindi)

Brief description: It is a small evergreen tree with pale brownish, aromatic bark. Leave elliptic, lanceolate, flowers foetid, in panicles, yellowish-white. Fruit dark purple, single seeded berry.

Parts used: Bark and leaves

Availability: December – July

Use: Bark and leaves are used as spice

Other uses: The bark and leaves on distillation give essential oil

Medicinal use: Cold dental diseases. It is used as Astringent, Stimulant disease of mouth, bronchial asthma, dental diseases, chronic cold, and astringent.

17. Name of the plant: **Doddanekkarike**

Botanical name: *Melastoma malabathrium* (MELASTOMACEAE)

Other name: Indian Rhododendron (English) Phulki (Hindi)

Brief description: It is an ornamental large shrub in moist and humid places in the country.

Parts used: Fruit, leaves

Use: Fruits are pulpy and sweet but slightly astringent and are eaten. Leaves are used as vegetables.

Other uses: Leaves contain free amino acids. Bark and leaves used in skin diseases

18. Name of the plant: **Elavarige**

Botanical name: *Cassia sophera* (CAESALPINIACEAE)

Other name: Kasamarda, (Sanskrit) Foetid senna (English)

Brief description: Small shrub peculiar with its yellow flowers. Leaves with conical gland at base. Pod turgid, septate, seed broadly ovoid, dark brown. The plant grows to a height of two to three meters. Generally found in roadsides and along the sides in open ground. Length of the leaf would be ten to fifteen centimeters.

Use: Used in preparing Tambli, Khatne and Patrode. It is a famous leafy vegetable to the women living in the Western Ghats.

Parts used: Leaves

Medicinal use: Juice of leaves is treated for ringworm. It is used in skin disease and in urinary problems. The paste obtained from the root is given to women during delivery time, which would ease the delivery.

19. Name of the plant: **Garike**

Botanical name: *Cynodon dactylon* (POACEAE)

Other name: Doorva (Sanskrit) Bahamas grass (English) Doob (Hindi)

Brief description: It is a perennial grass found throughout the country with wiry slender culms.

Parts used: Grass

Uses: Used in preparing Tambli, Decoction

Availability: throughout year

Other uses: used as fodder

Medicinal use: Cough, fever

Use from standard text: Used in urinary trouble, Hemorrhage burning sensation, skin disease, vomiting.

20. Name of the plant: **Ekanayaka**

Botanical name: *Casuarina esculenta* (FLACOURTIACEAE) *Esculenta eucifera*

Other name: Mehari, saptakapi (Sanskrit)

Brief description: Small trees common in wet deciduous to disturbed evergreen forests.

Flowers in clusters. Fruit orange yellow

Parts used: Fruit

Medicinal use: Decoction of roots used in diabetes and piles

21. Name of the plant: **Guddegeru**

Botanical name: *Semecarpus anacardium* (ANACARDIACEAE)

Other name: Marking nut (English) Bhilawa (Hindi)

Brief description: It is a moderate sized deciduous tree found throughout the tropical forests in India. Flower has yellow colour and flowering season is February to March. Fruit is yellow or yellowish red in colour, ripens during February and March month.

Use: Fruit is eaten, kernel of the seed was almond like taste is roasted and eaten.

Other use: A black resin obtained from the pericarp of the fruit is used as varnish. The nuts are used locally as a tan. Used in leprosy and nervous debility, worm infection, piles, fever, leucoderma, tuberculosis, piles and skin diseases.

22. Name of the plant: **Halasu**

Botanical name: *Artocarpus heterophyllus* (MORACEAE)

Other name: Panasa (Sanskrit) Jack tree (English) Kathal (Hindi)

Brief description: It is an evergreen large tree found in Western Ghats but also grown elsewhere. Leaves oblong-obovate, flowers unisexual. Fruit multiple, large.

Use: Fruits and seeds are used as vegetables. Sambar, Gojju, Paladya, Papad, Chips and several sweet dishes are prepared from this.

Availability: March to August

Other uses: Wood, bark and roots yield yellow dye. It is a tonic, used in diseases of pitta and vata. Also used in indigestion, liver disorders, stomachache, cough, rejuvenator

23. Name of the plant: **Hebbalasu**

Botanical name: *Artocarpus hirsutus* (MORACEAE)

Other name: Jungle jack tree (English)

Brief description: Large trees, frequent in moist deciduous to semi evergreen forest across Ghats. The tree grows to a height of 35 to 40 meters. Yellowish green colored flower appears in the month of December to March. Fruit ripens during May and June.

Use: Fruit is edible

24. Name of the plant: **Heggenasu** :

Botanical name: *Dioscorea bulbifera* (DIOSCOREACEAE)

Other name: Varaahee (Sanskrit) Potato yam (English) Pilaulu (Hindi)

Brief description: It is an unarmed climber trimming to the left, found throughout the country. Leaves simple, cordate, seed winged at base only.

Parts used: Tuber

Use: Vegetable

Medicinal use: Worm infestation, rejuvenator, fever, dysentery, diarrhea and piles.

25. Name of the plant: **Holedasavala**

Botanical name: *Lagerstroemia reginae* (LYTHRACEAE)

Other name: Kramuka (Sanskrit)

Brief description: Deciduous trees with smooth greenish bark

Parts used: Fruit

Use: Fruit is edible

Medicinal uses: Leaves purgative, diuretic and deobstruent. Decoction of dried fruits and leaves used in diabetes.

26. Name of the plant: **Honagenne soppu**

Botanical name: *Achyranthus trianda* (AMARANTHACEAE)

Other name: Apamarga (Sanskrit)

Brief description: Erect under shrubs with ovate leaves.

Parts used: Leaves

Use: Vegetable

Medicinal uses: Diseases of head and ear, worm infestation, stomach disorders. Abdominal disorders.

27. Name of the plant: **Hulisoppu, Pullampurchi**

Botanical name: *Oxalis corniculata* (OXALIDACEAE)

Other name: Changeri (Sanskrit) Amrulsak (Hindi)

Brief description: It is a diffuse creeping herb with trifoliate leaves found in wet places.

Leaves are sour to taste.

Parts used: Leaves

Use: Vegetable

Medicinal uses: Fresh juice of leaves given in dyspepsia, piles, and anemia, Fever, headache, abdominal and digestive disorders.

28. Name of the plant: **Ichalu**

Botanical name: *Phoenix sylvestris* (PALMACEAE)

Other name: Kapila (Sanskrit) Wild date palm (English) Khajuri (Hindi) Periccha (Tamil and Marathi) Itha (Telugu)

Brief description: Small palm with cylindrical stem and large crown. Leaves large, greenish green with spines. Plant grows in open ground and along the edges of the forest. Normal height of the plant is about three to four meters. Fruit ripens in the month of April to June.

Parts used: Fruit, trunk

Use: Pulp of the fruit is eaten. The trunk contains sago, which is eaten during scarcity periods. The palm is tapped for its sap. Fresh unfermented sap (Nira) is a refreshing sweet drink. The sap after fermentation is a common beverage (toddy),

Other uses: Leaves are used in wearing mats and brooms.

Medicinal use: Roots used in toothache. Fruit and other parts. Dysentery, ulcer, digestive and urinary disorders.

29. Name of the plant: **Ilikivisoppu**

Botanical name: *Emelia sonchifera*

Other name: Aakhuparni (Sanskrit)

Brief description: Trailing herbs with stout rootstock and diffuse branches. Herb grows in fertile and wet land.

Parts used: Whole plant

Use: Used as vegetable in preparing Tambli, and in preparing decoction.

Medicinal uses: Decoction of root is used in toothache, rheumatism, facial paralysis, arthritis, constipation and piles.

30. Name of the plant: **Joligehannu**

Botanical name: *Garcinia pictorius* (GUTTIFERAE)

Other name: Amlavetasa (Sanskrit) Egg tree (English) Tamala (Hindi) Jarambi (Marathi) Kulavi (Tamil) Tamalamu (Telugu)

Brief description: It is a medium sized tree found in semi-evergreen to moist deciduous forests. Leaves oblong-lanceolate. Berry sub globose, yellowish. Dark green coloured

leaves cover the entire tree. Flowering time is January to February and fruit ripens during April to June.

Parts used: Fruit

Uses: Fruit has juicy pulp with a peasant acid flavor. It is made into preserves and jams

Other uses: The leaves are used to cover goragu (Raincoat prepared by bamboo) and to store salt. Exudation from the under ripe fruit and the bark are used for dyeing.

Medicinal uses: Juice from dried fruits used in biliousness. Also used in abdominal disorders, vomiting fever and piles.

31. Name of the plant: **Jummimara**

Botanical name: *Fagaria budrunga* (RUTACEAE)

Other name: Tejovati (Sanskrit) Badrang (Hindi)

Brief description: It is a medium sized tree with conical prickles on branches and trunk.

Parts used: Fruit

Use: Fruits are used as spice and pickled

Other uses: The seeds are the source of an essential oil.

Medicinal uses: Fruit used in asthma, bronchitis, heart trouble, and toothache, cholera, tonic, rheumatism, bronchial asthma, worm infestation and urinary disorders.

32. Name of the plant: **Kaadu Arishina, Kachora**

Curcuma aromatica

Botanical name: *Curcuma zedoria* (ZINGIBERACEAE)

Other name: Karchoora (Sanskrit) Jangli haldi (Hindi) Zedoari (English)

Brief description: It is a small herbaceous plant with rhizomes bearing palmately branched cylindrical tubers.

Parts used: Tubers

Use: Rhizome is used in preparing health drink

Medicinal uses: rhizome stimulant, stomachic and carminative, abdominal disorders, pain piles, worm infestation, cardinal diseases, cough, fever, jaundice, gastric disorders and to treat ulcer.

33. Name of the plant: **Kaadu Kadale, Kadlangadle**

Botanical name: *Sida retusa* (MALVACEAE)

Other name: Bala (Sanskrit) Bariyar (Hindi) Manikya (Tamil) Country mallow (English)

Brief description: Found in tropics and subtropics. Plant grows along the roadsides, in the open ground and on the edges of the gardens. Maximum height of the plant is 1 to 1.5 meters. Flower has yellow colour.

Parts used: Leaves and pods.

Use: Used as vegetable in preparing Tambli and decoction.

Medicinal use: Used in rheumatism, tuberculosis and in skin troubles. Also used in pain, nervous disorders, cardiac diseases, piles abscess.

34. Name of the species: **Kadumenasu, Karimenasu**

Botanical name: *Piper nigrum* (PIPERACEAE)

Other name: Maricha (Sanskrit) Kalimirch (Hindi) Pepper (English)

Botanical name: It is a tropical large woody climbing plant common on forest trees of Western Ghats often cultivated for its berries.

Parts used: Fruit

Use: As spice and condiment.

Other use: Fruit shell yields essential oil

Medicinal uses: Used as stimulant, in weakness due to fever, decoction is taken for sore throat, leucoderma, leprosy, skin disease, cough, stomach disorders, fistula, piles abdominal disorders, headache, indigestion.

35. Name of the plant: **Kahi bevu**

Botanical name: *Azadiracta indica* (MELIACEAE)

Other name: Nimba (Sanskrit) Neem (Hindi) Margosa tree, Neem (English)

Brief description: It is a common tree with leaves crowded at the ends of branchlet. Found in hot, drier parts of the country often cultivated.

Parts used: leaves and fruit.

Use: Pulp of the fruit is eaten

Other uses: The gum obtained from the stem bark is bitter in taste and used as an adhesive. Kernel yields oil, which is yellow in color and bitter in taste. Extensively used in soap industry. The leaves are placed in clothes books and paper to repel insects. An extract of the leaves is used in toothpaste. It is also used as insecticide. The oil cake obtained from the seeds and leaves make good manure.

Medicinal uses: Skin troubles as antiseptic, applied to boils, stomachic and tonic. Also used in worm infestation, eye diseases, digestive problems, skin disease, jaundice, vomiting, and rejuvenator.

36. Name of the plant: **Kakke**

Botanical name: *Cassia fistula*

Other name: Suvarnaka, Rajataru (Sanskrit) Indian labernum (English) Amaltas (Hindi) Bhava (Marathi)

Brief description: It is an ornamental plant with yellow flowers, found abundantly in the tropical forests particularly in the drier regions. Flower appears in the month of April and May.

Parts used: Leaves, flowers, flower buds

Use: Used in preparing Tambli.

Other uses: Pulp of the fruit, root herb, seed and leaves are used as purgative. Bark gives tannin.

Medicinal use: Used in skin disease, leprosy, fever, and cardiac disease, jaundice constipation, skin disease, worm infestation diabetes.

37. Name of the plant: **Kachu, Kaggali**

Botanical name: *Acasia catechu* (MIMOSACEAE)

Other name: Khadira (Sanskrit) Khair (Hindi) Black Cutch (English) Sundri (Telugu)

Brief description: Medium sized tree found in deciduous forests with greenish brown bark. Flowers pale yellow, in spikes. In Uttara Kannada district this tree is mainly found in laterite soil of coastal region. Flowering season is from May to June month. Fruit ripens during January and February.

Parts used: Bark

Use: Gum obtained from stem bark is used with pan.

Other uses: Stem bark yields sum. The cutch obtained from the heart wood seeds a brown colour used in dyeing canvas, fishing nets, and ropes.

Medicinal uses: Used in sore throat and cough

38. Name of the plant: **Karibevu**

Botanical name: *Murraya koenigii* (RUTACEAE)

Other name: Kaidarya (Sanskrit) Barsanga, Kathnim (Hindi) Curry leaf Tree (English)

Brief description: Small trees with dark brown or black bark.

Parts used: Leaves

Use: Leaves are used for flavoring dishes

Medicinal uses: Tonic, stomachic used in diarrhea and dysentery. Used in dropsy, dysentery diarrhea, chronic fever, vomiting and mental disorders.

39. Name of the plant: **Kouli, Karanda**

Botanical name: *Carissa carandus* (APOCYNACEAE)

Other name: Karamarda (Sanskrit) Karanda (English) Karumcha (Hindi) Karavanda (Marathi) Kalakke (Tamil) Eka (Telugu)

Brief description: It is a spiny shrub found throughout the drier parts in the country. Shrub has slightly curved or straight spines. Berry is ovoid or ellipsoid. Fruit is green in colour and becomes pink when ripens. Fruit ripens in the month of April and May.

Parts used: Fruit

Use: Fruit is edible. Unripe fruit is pickled.

Medicinal use: Roots stomachic and anthelmintic. Decoction of leaves is given in intermittent fever. Also used in cardiac disease, hemorrhage thirst and indigestion.

40. Name of the plant: **Maadahaglu, Adavihaglu**

Botanical name: *Momordica dioica* (CUCURBITACEAE)

Other name: Karkotaka (Sanskrit) Small bittergourd (English) Jangli karela (Hindi)

Brief description: deciduous climber with tuberous roots. Leaves broadly ovate. Fruit ovoid or ellipsoid. Flowers yellow, solitary.

Parts used: Fruit

Use: Fruit is edible and used as vegetable

Medicinal uses: Eye diseases, poisoning, fever.

41. Name of the plant: **Mavu**

Botanical name: *Mangifera indica* (ANACARDIACEAE)

Other name: Amra (Sanskrit) Mango (English) Aam (Hindi)

Brief description: large tree with thick rough, dark gray barks. Semi evergreen to evergreen mostly cultivated and is found naturally in the tropical forests. There are several hundreds of mango varieties in the forest of Uttara Kannada, especially along the banks of river and tributaries.

Parts used: Fruits and un ripe fruits.

Use: Fruits are edible, raw mangoes are pickled and used as vegetable in preparing Tambli, Gojju, Appehuli and other recipes.

Medicinal uses: Used as diuretic in asthma, ear disease, diarrhea, hemorrhage menorhagia, urinary disorders, and in ulcers.

42. Name of the plant: **Murugalu**

Botanical name: *Garcinia indica* (GUTTIFERAE)

Other name: Vrakshamla (Sanskrit) Kokum (English) Vishambil (Hindi)

Brief description: It is a slender tree with spreading branches, frequent in evergreen and deciduous forests. Tree grows to a height of 8 to 10 meters. Even the leaf has sour taste. Unripe fruit has green colour where as ripe fruit have dark red colour. Flowering appears in the month of December and January and fruit ripens during April to May. In Uttara

Kannada there are two varieties of Murugalu. One is red Murugalu and another is white Murugalu. The white one has more medicinal properties than the red one.

Parts used: Fruit, Rind, and Seed

Use: Used to make Kokum juice, as sour in food dishes. Kokum butter is used to fry the dishes.

Medicinal uses: Kokum butter is used in skin diseases especially during cold season.

Kokum juice is considered as good medicine for Pitha.

43. Name of the plant: **Anabe**

Botanical name: *Volvaria terastitus*, *Entoloma microcarpum*

Other name: Mushrooms (English) Dhingri (Hindi)

Brief description: Mushroom is a fungus appears particularly in places, which are rich in humus. It consists of two parts, the portion above the ground consists of a cap and a stock and is edible under side of cap, and there are numerous radiating gills.

Availability: summer monsoon

Use: Used as vegetable.

44. Name of the plant: **Nachikegida, Muthidare muni**

Botanical name: *Mimosa pudica* (MIMOSACEAE)

Other name: Lajjawanti (Sanskrit) Sharmeli (Hindi) Touch me not (English)

Brief description: Prickly woody herbs. Leaves are sensitive to touch. Found in open wastelands.

Parts used: Leaves.

Use: Vegetable

Medicinal use: Used in piles, urinary complaints, in dressings of sinus.

45. Name of the plant: **Nelabevu**

Name: *Swertia chirata* (GENTIANACEAE)

Other name: Kiratatikta (Sanskrit) Kiryat (Hindi) Chiretta (English)

Brief description: It is an annual or perennial herb found in temperate regions. The lower leaves are much larger. Flowering occurs in cold weather. The plant dies lack in winter.

Parts used: Leaves

Use: Vegetable

Medicinal use: Used as toxic, stomachic and laxative

46. Name of the plant: **Nelanelli, Kirunelli**

Botanical name: *Phyllanthus asperulatus* (EUPHORBIACEAE)

Other name: Bhoodatri (Sanskrit)

Brief description: Slender herbs found in deciduous forests as under growth. Flowers solitary, male flowers with minute disc glands.

Parts used: Leaves

Use: Vegetable

Medicinal use: Plant is used in certain forms of jaundice, skin disease, and kidney troubles. Astringent stomachic, diuretic, and febrifuge. Used in stomach trouble, jaundice, urine genital system, skin disease.

47. Name of the plant: **Nelli**

Botanical name: *Emblica officinalis* (EUPHORBIACEAE)

Other name: Amalaka, Adiphala (Sanskrit) Embli myrobalum (English) Amla (Hindi) Usi (Telugu) Nelli (Tamil)

Brief description: It is a small to medium sized tree commonly found in the mixed dry deciduous forests in India. It is also cultivated. Stem of the plant has whitish gray colour. Small and white flowers appear during March to December period. Fruit appears from November to March.

Parts used: Fruit

Use: Fruits are used as vegetables in making Tambli, Gojju and curries. It is pickled and made into jams.

Medicinal use: Rich in vitamin C. Used in preparing Triphalas one of the important Ayurvedic medicines. Fruit astringent, cooling diuretic, used in cardiac diseases, chronic fever, vomiting.

48. Name of the plant: **Nerlu**

Botanical name: *Syzygium cumini* (MYRTACEAE)

Other name: Jambu (Sanskrit) Jamun (Hindi) Java plum (English) Jaman (Marathi) Naval (Tamil) Neradu (Telugu)

Brief description: It is a large evergreen tree found wild as well as cultivated, throughout tropical to subtropical parts in the country.

Parts used: Fruit

Use: Fruit is edible

Other use: Juice of unripe fruits is used for preparing vinegar. Bark yields red dye. The leaves are used as fodder for livestock.

Medicinal use: Decoction of bark and powdered seeds used as diabetes.

Use from standard text: Hemorrhage, burning sensation, cough, vata, thirst, and diarrhea.

49. Name of the plant: **Noregenasu**

Botanical Name: *Dioscorea pentaphylla* (DIOSCOREACEAE)

Other name: Vaarahee (Sanskrit) Kanta alu (Hindi)

Brief description: It is a prickly climber with stem twinning to the left, found throughout India.

Parts used: Tubers

Use: Vegetable

Medicinal use: Tubers applied to ulcers, used in piles and dysentery

50. Name of the plant: **Nurkalu**

Botanical name: *Buchanania lanzan* (ANACARDIACEAE)

Other name: Priyala (Sanskrit) Cuddapah almond (English) Piyala (Hindi)

Brief description: Medium sized tree with dark grey thick bark, found throughout tropical forests in the country.

Parts used: Fruit, Seed

Use: Pulp of the fruit and seeds are eaten

Other use: Bark yields gum and tannin

Medicinal uses: Diarrhea, glandular swellings of the neck, hemorrhage, burning sensation, Fever, thirst.

51. Name of the plant: **Ondelaga**

Botanical name: *Centella asiatica* (APIACEAE)

Other name: Brahmi, Manduka parni (Sanskrit) Indian pennywort (English)

Brahmi, brahma manduki (Hindi)

Brief description: It is a trailing aromatic herb found wild throughout India particularly in moister places.

Parts used: Entire plant

Use: As vegetable (Tambli) and in making decoction

Other uses: Yields essential oil

Medicinal uses: As an antidote against cholera, diuretic, toxic leprosy, insanity, Improves memory, promotes growth of hair.

52. Name of the plant: **Paragi**

Botanical name: *Zizipus oenoplia* (RHAMNACEAE)

Other name: Bahukantaka (Sanskrit) Makoil (Hindi)

Brief description: Prickly scandant shrubs with prickles found in dry tropical forests of India. Flowers green, drupes globose or ovoid black shining.

Parts used: Fruit

Use: Fruit is edible

Other use: Bark is used as a tan

Medicinal use: Used in hyper acidity stomachache

53. Name of the plant: **Rampatre**

Botanical name: *Myristica malbarica* (MYRISTICACEAE)

Other name: Jateephala (Sanskrit) Rampatri (Hindi) Malabar nutmeg.

Brief description: Moderate sized tree with smooth greenish black bark, found in Western Ghats of the country

Parts used: Ripe fruit

Use: Used as spice and as adulterant of Nutmeg

Other uses: Seed kernels yield fat and used as illuminant Bark yields gum king

Medicinal use: Ulcers, worm infestation, diarrhea, vomiting

54. Name of the plant: **Ranjalu**

Botanical name: *Mimsops elengi* (SAPOTACEAE)

Other name: Bakula (Sanskrit) Maulsari (Hindi) Spanish cherry.

Brief description: It is a large evergreen tree found in central and South India. It is also grown for its fruits in many parts of the country.

Parts used: Fruit, seed

Use: Fruit is edible. Edible oil can be extracted with seed

Other uses: The flowers yield an essential oil. Attar can be prepared with Sandal wood oil.

Medicinal use: Used in diarrhea, dysentery and in constipation

Use from std text: Dental diseases, burning sensation thirst, leprosy, cardiac diseases fever, headache, eye diseases.

55. Name of the plant: **Shatavari**

Botanical name: *Asparagus racemosus* (LILIACEAE)

Other name: Shatamooli (Sanskrit) Satawar (Hindi)

Brief description: It is a small spiny climbing perennial herb with needle like leaves

Parts used: Tubers

Use: Vegetable, used in making curry.

Medicinal use: Roots are used as tonic and aphrodisiac

Use from standard text: Increases breast milk, Urinary disease, gynecological disorders hyper acidity diabetes, fever, skin diseases.

56. Name of the plant: **Shivane**

Botanical name: *Gmelina arborea* (VERBENACEAE)

Other name: Gopabhadra (Sanskrit) Gumbhari (Hindi)

Malaya bush beech (English)

Brief description: Large, deciduous, unarmed trees with smooth whitish grey bark

Parts used: Fruit leaves

Use: Fruit is edible. Decoction is prepared by leaves

Other uses: Leaves are lopped for fodder to cattle

Medicinal use: Commonly used as a toxic and to treat fractures in bone both for cattle and human beings.

Other use from standard text: Ingredient of 'Dasambla', used in diseases of nervous system diabetes.

57. Name of the plant: **Shreegandha**

Botanical name: *Santalum album* (SANTALACEAE)

Other name: Chandana (Sanskrit) Chandan (Hindi) Sandal wood (English)

Brief description: Semi parasitic medium size tree, bark reddish rough with deep vertical cracks.

Parts used: Leaves

Use: Vegetable

Other uses: Source of sandalwood oil. Paste of sandalwood is used in religious functions by Hindus.

Medicinal use: diuretic, refrigerant and expectorant

58. Name of the plant: **Sugandhi balli**

Botanical name: *Hemidesmus indicus* (ASCLEPIADACEAE)

Other name: Anantmoola, Sariva (Sanskrit) Kapuri (Hindi) Indian sarāpilla (English)

Brief description: Twinning or semi erect laticiferous herbs, flowers yellow to brownish, in cymes.

Parts used: Roots

Use: In preparing decoction

Medicinal use: The roots aromatic and are used as toxic, diuretic, diaphoretic and demulcent

Use from standard text: Hemorrhage, gout, wounds, leprosy, disorders of blood, jaundice, vata and pittam, grandular swellings

59. Name of the plant: **Taari**

Botanical name: *Terminalia bellerica* (COMBRETACEAE)

Other name: Bahera (Hindi) Belleric myrobalan (English)

Brief description: It is a large tree growing wild throughout the tropical forests in the country. Stem is buttressed when old.

Parts used: Fruit

Use: Kernel is eaten

Medicinal use: One of the triphalas is indigenous medicine

Use from std text: Astringent in dropsy piles, diarrhea, purgative

60. Name of the plant: **Tagate**

Botanical name: *Cassia tora* (CAESALPINIACEAE)

Other name: Sickle senna (English) Pamaar(Hindi)

Brief description: It is a common weed with yellow flowers

Parts used: Leaves

Use: Vegetable

Medicinal use: Leaves purgative used in ringworm and other skin diseases.

61. Name of the plant: **Tulsi**

Botanical name: *Osimum sanctum* (LABIATEAE)

Other name: Patra pushpa (Sanskrit) Sacred basil (English)

Brief description: It is a branched annual herb found throughout the country as an escape.

The plant is held sacred by Hindus

Parts used: Leaves

Use: Vegetable

Other uses: The oil from the leaves is reported to possess anti-bacterial properties.

Medicinal use: The juice of leaves possesses stimulating and expectorant properties. It is applied in skin diseases.

Use from standard text: Leaves stimulant, diaphoretic, and expectorant, used in bronchitis, ringworm, and other cutaneous diseases. Infusion used as a stomachic. Decoction of roots given as a diaphoretic in malarial fevers. Seeds mucilaginous, demulcent used in genitourinary disorders.

62. Name of the plant: **Tumri leaves**

Botanical name: *Diospyros tuperu* (EBENACEAE)

Other name: Dirghapatraka (Sanskrit) Coromandel ebony (English) Tendu (Hindi)

Brief description: Deciduous trees with dark grey or black bark.

Parts used: Leaves, Fruit, seed

Use: Pulp of the fruit is edible. Seeds are boiled and eaten.

Other uses: the leaves are used for rolling beedis (local cigarettes) Bark fruit yield tannin

Medicinal use: Leaves diuretic, laxative, carminative, dried flowers used in urinary and skin troubles. Decoction of bark used in diarrhea and dyspepsia

Use from standard text: Leprosy, abdominal disorders, worm infestation.

63. Name of the plant: **Uppage, Mantapuli**

Botanical name: *Garcinia gummi gatta* (GUTTIFERACEAE)

Sanskrit name: Gamboge tree (English) Velatti imli (Hindi)

Brief description: Medium sized tree with drooping branches found in semi evergreen to evergreen forests of Western Ghats. Fruits are ovoid yellows in colour.

Parts used: Rind of fruit, seeds

Use: Fruits are used as condiment for flowering. Curries

Medicinal use: Decoction of rind given in rheumatism and bowel complaints. Resin used as purgative.

64. Name of the plant: **Vaatekayi, Undekayi**

Botanical name: *Artocarpus lakoocha* (MORACEAE)

Other name: Lakucha (Sanskrit)

Brief description: Large tree with dark brown found in deciduous forests but occasionally found in semi evergreen forests.

Parts used: Unripe fruit

Use: As a tamarind substitute

Medicinal use: Eye diseases, aphrodisiac

65. Name of the plant: Kaadu **Adike, Pandavara Adike**

Botanical name: *Areca dicksnoii* (PALMACEAE)

Brief description: It is a slender graceful palm with pinnate forced leaves. Found in Uttara Kannada, Nilgiris and in Kerala.

Parts used: Fruit

Use: Fruits of this palm are used as substitute for betelnut.

Medicinal use: Dried husk used in flatulence, obstructive disease of stomach and dropsy.

66. Name of the plant: **Kaadu Shunti**

Botanical name: *Zingiber zerumbet* (ZINGIBERACEAE)

Sanskrit name: Vanadraka

Brief description: Perennial herbs arising from a large aromatic roots stock. Leaves oblong lanecolate.

Parts used: Roots

Use: Rhizomes are used as a condiment

Medicinal use: Cough stomachache, asthma, vermifuge, used in leprosy and other skin diseases.

67. Name of the plant: **Bachale soppu**

Botanical name: *Boerhavia diffusa* (NYCTAGINACEAE)

Other name: Punarnava (Sanskrit, Hindi)

Brief description: It is a trailing herb with opposite leaves. Fruit clavate, grandular.

Parts used: Leaves

Use: Vegetable

Medicinal use: Decoction of the plant is used in Kidney trouble. In eye diseases

Use from standard text: Roots expectorant diuretic, laxative, used in Asthma in urinary disorders. Cardiac and stomach disorders.

68. Name of the plant: **Gudda pannerlu, Jogi hannu**

Botanical name: *Syzigium zeylanicum* (MYRTACE)

Other name: Meghamadini (Sanskrit)

Brief description: Small trees with slender branchlets. Leaves elliptic -lanceolate, aromatic, flowers white, Berry globose, white

Parts used: Fruit leaves

Use: Fruit is edible, leaves used as vegetable

Medicinal use: Indigestion, vomiting and stomach disorders

Use from standard text: Decoction of leaves and roots used as a vermifuge

69. Name of the plant: **Agase, Agache**

Botanical name: *Sesbania grandiflora* (PAPILIONACEAE)

Other name: Munidruma (Sanskrit)

Brief description: Medium sized trees, leaves pinnate, flowers white

Parts used: Leaves

Use: Vegetable

Medicinal uses: Juice of root given as an expectorant, Bark tonic and febrifuge.

70. Name of the plant: **Haadegadde, Haademanni**

Botanical name: *Cyclea burmunni* (MENISPERMACEAE)

Sanskrit name: Rajapathaka

Brief description: It is a twinning hairy greenish climber with deltoid ovate leaves.

Flowers greenish in slender panicles. Drupe obovate. Fruits appear in bunches. Unripe

fruits are greenish in color becomes white when the fruit ripens.

Parts used: roots, leaves, fruits

Use: Vegetable in preparing chutney, curry and payasam root decoction is prepared from the roots.

Medicinal uses: Leaves and roots applied to head. Also used in piles, dysentery.

Use from standard text: Diuretic, antiperiodic, purgative, used in dyspepsia, diseases of vatam and pittam.

72. Name of the plant: **Nelakanchi, Nelanimbe**

Botanical: *Naregamia alata* (RUTACEAE)

Brief description: It is an under shrub, maximum height of plant is one foot leaves 3 foliate leaflets sessile, obovate, flowers milky white.

Parts used: Flowers

Use: Vegetable (Chutney, Tambli)

Medicinal use: Used in scabies, wounds

Use from standard, text: Emetic, cholagogue, expectorant, useful in chronic bronchitis.

73. Name of the plant: **Kallu baale, Kaadubaale**

Botanical name: *Musa bulbisiana* (MUSACEAE)

Sanskrit name: Vanakadali

Brief description: It is a stoloniferous plant with cylindrical trunk leaves large, oblong, green inflorescence pendulous, long. Fruit cylindrical, pulpy with full of seeds

Parts used: Inflorescence unripe fruit

Use: Vegetable

Other uses: Fiber is obtained from the leaf sheath

Medicinal use: Urinary problems, dysentery

74. Name of the plant: **Chakramani**

Botanical name: *Sauropus androgynus* (EUPHORBIACEAE)

Sanskrit name: Surasaruni

Brief description: It is a small shrub with soft stem. Tender fruits are green in colour.

Unripe fruits become white and the ripe fruit have dark red colour.

Parts used: Leaves, tender leaves, tender fruits

Use: Vegetable

Medicinal use: Used in fever, throat problem

75. Name of the plant: **Surulikudi, Swarle kudi, Bilikonde**

Botanical name: *Polygonum chinensis* (POLYGONACEAE)

Brief description: It is a scandant under shrub with white flowers. Leaves elliptic ovate.

Usually crenulate or rarely entire.

Parts used: leaves, Young stems

Use: Vegetable

Medicinal use: Used as tonic, dental problem, indigestion, and stomachache.

Use from standard text: Herb tonic, antiscorbutic and vulnerary.

76. Name of the plant: **Bhootale, Kempudase, Kandeli**

Botanical name: *Sterculia urens* (STERCULIACEAE)

Other name: Kateera gum (English) Kadaya (Hindi)

Brief description: It is a deciduous tree with clean and smooth hole. Flowering appears from December to March. Fruit ripens during April.

Parts used: Stem, seeds.

Use: gum obtained from the stem is used for sweet meats and in ice cream preparations.

The seeds are eaten after roasting.

77. Name: Hole dasavala, Kisukare, Kusumale,

Botanical Name: *Ixora coccinea*

Other name: Chandipriya (Sanskrit) Scark Inora (English)

Brief description: It is a shrub with elliptic ovate or obovate, sessile leaves. Flowers have scarlet red color, Drupe Globose, reddish, abundantly found in lateritic soil.

Parts used: Fruit

Use: Fruit is edible

Medicinal use: Flowers rich in vitamin. Used in urinary problems, wounds liver and ntestinal problems and skin diseases.

Use from standard text: Roots stomachic and sedative, used in loss of appetite, dysentery, astringent, antiseptic, chronic, ulcers, venereal diseases, thirst and in fever.

78. Name of the plant: **Sambrani gida, Doddi patre**

Botanical name: *Coleus aromaticus* (LABIATAE)

Other name: Parnayavani (Sanskrit) Indian borage (English) Amrod (Hindi)

Brief description: It is a large succulent herb with aromatic leaves, flowers are small and pale purple in colour.

Parts used: Leaves

Use: used as vegetable in making Tambli, Salad and chutney

Medicinal use: Used in indigestion, kidney stone, fever, cough and cold, asthma and bad smelling in mouth.

Use from standard, text: Used in urinary diseases, chronic cough and asthma, vaginal discharges, dyspepsia and carminative.

79. Name of the plant: **Nela Mucchala. Nelagonagalu, Aanehejje**

Botanical: *Elephantopus scabra* (ASTERACEAE)

Other name: Gojihva, Mayurashikha (Sanskrit), Godhi (Hindi), Bhui pathari (Marathi),

Prickly leafed elephants foot (English)

Brief description: It is a scapigerous non-aromatic herb. Leaves look like as covered to the ground (or as footstep of elephants)

Flowers purple, in homogamous compound heads.

Parts used: Tender leaves

Use: Vegetable

Medicinal use: Used in heart problems, urinary disorders, vomiting, dysentery, intestine pain, stone in kidney, stomach.

Other uses: Used as cattle feed and increases milk in cattle.

Use from standard text: the plant is rich in sodium, Potassium, Magnesium, Iron, and calcium. Used in diarrhea, hemorrhage, urinary calculi, leprosy, and retention of urine.

7. TREND IN COLLECTION AND USE OF WILD FOODS

Food production or consumption in any part of the world depends mainly on the vegetation that grows in that area. Highly developed transport system has changed this scenario. As the human interaction increased throughout the world, new crops, exotic species were introduced in different regions and people have exchanged plant. Change in life style has brought change in food production and food consumption.

Fifty years back, all main food items were prepared from locally available resources. Many of the food items made at that time are not in use today. Food habits among the people have been changing fast. The dependency for food items on forests has decreased. Man was closely associated with nature and used many important species from the forest. For them forest was a medicinal and vegetable garden, various kinds of leaves shoot tubers and bark were used for consumption. Today in most of the areas, traditional food items are changing at a faster rate and modern instant recipes have replaced them. In some remote areas, few traditional methods have remained in rare cases.

Why wild food items are disappearing at a faster rate? What are the circumstances that have compelled to change the food habits?

Common perception is that changing life style has been responsible for neglect of wild food items, but it is not only the reason, which changed food habits. Several reasons combined together caused shift in food habits.

Degradation of forest: Gradual shrinking of forest cover due to commercial logging, agriculture expansion and due to other reasons ^{silviculture, commercial plantations, immigration} resulted in degradation of the forest cover in this district. It is one of the main reasons, which has led to disappearance of flora and fauna in Uttara Kannada. Once abundant plants were available, now they have become scarce, this changed entire food habit. Bamboo, Vate (*Artocarpus lakoocha*), Jack, Kouli (*Carissa carandus*) various tuber crops like Kadukesu (Wild Colocasia) Suvarnagadde, Ambekombu and many other wild species were available in abundance. Now their natural habitat has been destructed due to deforestation. Thus, present generation is devoid of knowledge regarding these plants.

Changing human lifestyle and taste: This is also an important reason for change in the food habit. Most of the people of present generation do not want to follow cumbersome procedures of preparing wild food. They want ready-made instant foods. As result indigenous knowledge of most of the wild plants and their usage in food preparation disappeared. Consequently, the younger generation is not aware of the wealth of wild food species in their region.

Development of transport system: Transport system plays a vital role in changing food habits. It helped to bring the food materials from places far away. People can get vegetable from distant places at a very cheap rate. This has changed the attitude of forest dwelling communities. Now they purchase vegetable in the market, instead of collecting it in forests.

Negligence of traditional methods: When people get different types of food in ready-made conditions, this made them discard traditional methods. Thus, it made them to neglect the traditional sources of foods. When he got root crops from the market then he started to neglect the root crops that is available in the forest.

Decline in traditional management systems of forest.

Over exploitation:

commercialisation:

CHAPTER 8. OUT COME OF THE STUDY

Preparation of Posters:

More than 60 posters have been prepared by *Sateesh Yellapur*, an artist with awareness on wild food.

The themes of posters are:

1. Bio diversity
2. Medicinal use as well as other uses of uncultivated foods
3. Different kind of recipes prepared using wild food
4. How and why the knowledge on wild food is decreasing
5. Details of important wild food (more than 40 species)
6. The steps we should take to conserve grow and use the wild food.
7. How the pesticides are being used to grow crops and vegetables
8. Impact of pesticides to human beings and livestock

Posters of individual plant species

Posters of more than 40 wild food species are prepared with brief description of individual plant species. The poster include the local name of the plant, botanical name and how it is used in food. Besides the poster also mention the medicinal use of the plant.

Brochure:

A brochure is prepared providing detail information on the importance of wild food, different dishes prepared from wild food. How the knowledge on wild food is decreasing and immediate measures that we need to conserve and use uncultivated food.

The suggestions given in the brochure are:

Grow wild fruit and wild vegetable spices in the home garden.

Try to use at least one variety of wild species in daily food.

Make a list and collect details of fruits available in the forest and share your knowledge with children.

Please tell the importance of wild food to others so that they are also interested in growing, conserving and using it.

Come forward to save the uncultivated foods, which are totally free from chemical pesticides.

Contests in schools:

Contest is conducted in 21 schools for students who are involved in data collection. (List of schools and other details are incorporated in appendix)

The contests are carried out in different phases. In the first phase the team members give a brief lecture on bio diversity as well as uncultivated foods and objective of this study to the students. A format and questionnaire regarding how to collect the information is provided to them. The students were asked to collect the data through discussion with their parents and neighbours. At least one month is given for the data collection. Transmission of knowledge from older generation to younger generation took place during this phase to certain level. Many students came with list of more than 350 species, which are used as wild foods and medicine.

One 7th standard student, K. Praveen, Primary school Bakkal listed **432 species**. Though there are some repetition of species this number is very important.

In the third phase exhibition and demonstration has been done in each schools. Students were taken to nearby forest area and asked to identify the uncultivated food species. After this, the resource person (G.S. Hegde; a farmer living near Sirsi who can identify more than thousand plant species with local use, scientific name and even with Ayurvedic knowledge) give the details of on each plant. All the students, teachers, management committee of the school assemble together for prize distribution function. Each participant is given five books as prize. The program concludes with lecture on importance of wild food, role of school children to preserve and use it. It is important to notice that students who are not good in regular studies or academics have participated very actively and won more prizes in this contest on wild food.

Herbarium

Slides

Photos,

Book

Stalls in Jatras: Stalls were organised in the following places during Jatras.

<u>Date</u>	<u>Place</u>
April 8, 2001	Manjguni
May 6, 2001	Sonda
May 8 and 9, 2001	Sirsi (As part of NBSAP-National Bio diversity Action Plan)

Conclusion

The forest dwelling communities in Uttara Kannada district of Karnataka in south India have enormous knowledge about the use of wild species in food and agriculture. The abundant forest resources have helped to evolve a life style, which promoted use of the plant resources from their surroundings. However, in recent years the change in life styles and the accelerated deforestation in the region have affected the use of wild food resources. There is an urgent need to retrieve the knowledge of wild species from the older generation in the forest dwelling communities and pass it on to younger generation. This will pave way for enhancing the diversity.

REFERENCES

- Annual reports (1992 to 98): Parisara Sanmrakshana Kendra, Sirsi 581401.
- Beer de Jenne and Dermott Melanic (1996): The economic value of Non- Timber Forest Products in South East Asia, the Netherlands committee for IUCN, Amsterdam.
- Forestry & food security (1989): Food and Agriculture organization of the United Nations, FAO, and SIDA
- Forestry & Nutrition, (1989), A reference manual. Food & Agriculture organization of the Unites FAO, SIDA
- Food for all (1996): World Food Summit, FAO.
- Household food security and forestry (1989): Food & Agriculture Organization of the United Nations, FAO, SIDA
- Gazetteer of the Bombay Presidency, volume xv- Part 1, Kanara district (1883). Government Central Press Reprinted by Sagardeep Publications, Karwar in 1991.
- Hegde P (1995): Commercialisation of Tropical Forests of Western Ghats, Parisara Sanmrakshana Kendra, Sirsi (Unpublished report)
- Julia Falconer, (1992) Non-timber Forest Products in Southern Ghana. Overseas Development Administration (ODA)
- Non-Wood Forest Products (1995). Report of the International Expert Consultation forest products, Food and Agriculture organization of the United Nations Rome.
- Our life depends on nature (May 1994), Non-Timber Forest Products in Conservation & Community Development, in LAO FOR .
- Uttara Kannada district statistics hand book (1999-2000): Zilla Panchayat, Uttara Kannada, Karwar.

Appendix:1

Bio diversity contest in schools/college

Sl No.	Name of the School	Students participated			Maximum species recorded	Total entries Of species
		Male	Female	Total		
1.	Nilkund	13	6	19	130	1541
2.	H.P.S. Bakkala	10	6	16	432	2815
3.	Sarkuli	12	17	29	234	3214
4.	Goli High school	4	4	8	63	181
5.	Primary School Vanalli	1	3	4	66	120
6.	H.P.S. Hulekal	4	21	25	215	1840
7.	Gajanan Highschool Hegadekatta	20	22	42	225	3700
8.	H.P.S. Hukkali	13	15	28	100	1220
9.	Pragati Vidyalaya Bhartnalli	10	9	19	140	1022
10.	Kavalakki	18	20	38	153	1542
11.	Mattigar	4	4	8	193	930
12.	Salkani	10	8	18	169	2480
13.	Gonsar	5	3	8	103	680
14.	Heggarne	11	18	29	260	3075
15.	Shirguni	7	12	19	279	4141
16.	Manchikeri	7	13	20	95	1644
17.	Sirsi College	---	11	11	145	909
18.	*Nanikatta	--	---	---	---	---
19.	* Neernalli	---	---	---	---	---

20.	High School Vanalli	4	6	10	199	1353
21	Khasapal	6	8	14	195	1527
<i>Total</i>		159	206	365	----	33934

** Only exhibition and demonstration were held and students did not participated in Data collection.*

Appendix.2.

List of Wild Foods available in Uttara Kannada District, Kanataka, India.

S.No	Local name (Kannada)	Other names	Botanical Name	Parts used	Uses
1	Aanekodu	Chakrapale	<i>Oroxylum indicum</i>	Pods	Additive with rice
2	Agase	Tagachi	<i>Sesbania grandiflora</i>	Leaves	Additive with rice
3	Anabe, Anabu	Mushrooms	<i>Agaricus campestris</i>	Whole plant	Additive with rice
4	Ambekombu	Mango zinger	<i>Curcuma amaba</i>	Tuber	Additive with rice
5	Ankole	Akola	<i>Alangium salvifolium</i>	Fruit	Wild Fruit
6	Arihina andi	Arishina gurige	<i>Garcinia morella</i>	Seeds	Edible Oil
7	Armadlu	Petlakayi	<i>Zanthoxylum ovafolium</i>	Fruit	Pickle
10	Ashwatha	Peepul tree, Arali	<i>Ficus religiosa</i>	Bark	Herbal tea
11	Atti	Oudubara, Gulara	<i>Ficus glomerata</i>	Leaves	Additive with rice
12	Basale		<i>Basella rubra</i>	Leaves	Additive with rice
13	Bacchale soppu	Ganajale	<i>Boerhavia diffusa</i>	Leaves	Additive with rice
14	Baine	Sago, Toddy Palm	<i>Caryotaurens</i>	Whole plant	Other Uses
15	Baje	Kharasara	<i>Acorus calamus</i>	Tuber	Additive with rice
16	Bekkenatalegida	Bananiyar	<i>Sida veronicifolia</i>	Leaves	Additive with rice
17	Bennekundige	Artikundige	<i>Costus speciosus</i>	Leaves	Additive with rice
18	Bhore	Egachi, Karkamadhu	<i>Ziziphus mauritiana</i>	Fruit	Wild Fruit
19	Bikke	Dikkamali, Naadihingu	<i>Gardenia gummifera</i>	Fruit	Wild Fruit
20	Bilimullehannu	Suran, Kottehannu	<i>Zyzyplus rugosa</i>	Fruit	Wild Fruit
21	Bilva Patre	Bel, Bengal, Khaira	<i>Aegle marmelos</i>	Leaves	Additive with rice
22	Chakramuni	Chakramani, Surasaruni	<i>Souropus androgynus</i>	Leaves	Additive with rice
23	Challe	Shelvant, Bahuvaraka	<i>Cordia myxa</i>	Fruit	Wild Fruit
24	Chandige	Parna beeja, Kenjige	<i>Caesalpinia mimosoides</i>	Whole plant	Additive with rice
25	Dalchinni	Cinnamom	<i>Cinnamomum Zeylanium</i>	Fruit	Spice
26	Dodda nekkarike	Ankerki, Phulki	<i>Melastoma malabathrium</i>	Leaves	Additive with rice
27	Doorva	Garike, rasallaki	<i>Cynodon dactylon</i>	Whole plant	Herbal tea
28	Ekanayanka	Mehari, Saptakapi	<i>Esculenta eucifera</i>	Fruit	Wild Fruit
29	Elavarige	Kaasamarda	<i>Cassia sophora</i>	Leaves	Additive with rice
30	Ganapekayi	Hallekayi, Pallekayi	<i>Entada phaseoloides</i>	Fruit	Additive with rice
31	Gangamma balli	Jyostishmati	Not known	Whole plant	Herbal tea
32	Gavatlakayi	Gavaldekayi	Not known	Fruit	Additive with rice
33	Gonisoppu	Genigida	<i>Portulaca quadrifida</i>	Whole plant	Additive with rice
34	Guddegeru	Marking nut	<i>Semecarpus anacardium</i>	Fruit	Wild Fruit
35	Gudda pannerlu	Jogi hannu	<i>Syzigium zeylanicum</i>	Leaves	Additive with rice

36	Haligehannu		Not known	Fruit	
37	Haadegadde	Haademanni, Rajapathaka	<i>Cyclea burmuni</i>	Rhizome	Additive with rice
38	Halasu	Panasa, Kathal	<i>Artocarpus, heterophyllus</i>	Fruit	Additive with rice
39	Hannusampige		<i>Flacourtia moritane</i>	Fruit	Wild Fruit
40	Hebbalasu	Jungle jack tree	<i>Artocarpus hirsuta</i>	Fruit	Wild Fruit
41	Heggenasu	Potato yam	<i>Dioscorea bulbifera</i>	Tuber	Additive with rice
42	Holedasavala	Kramuka	<i>Lagerstroemia reginae</i>	Whole plant	Additive with rice
43	Honagenne soppu	Paraga pattur	<i>Achyranthes trianda</i>	Leaves	Additive with rice
44	Honey	Jenu, Madhu, Shahad	<i>Apis spp</i>		Other Uses
45	Hulisoppu	Pullampurachi	<i>Oxalis corniculata</i>	Whole plant	Additive with rice
46	Ichalu	Khanjur, Shindi, Wild date	<i>Phoenix sylvestris</i>	Fruit	Other Uses
47	Ilikivi soppu	Aakhuparni, Prasarini	<i>Merremia tridentata</i>	Whole plant	Additive with rice
48	Ippe	Mahua	<i>Madhuca longifolia</i>	Flowers, Seed	
49	Jeevanthi Gida		<i>Flickingeria macraci</i>	Whole plant	Additive with rice
50	Jolige hannu	Jeerksina huli, Dyavanige Jamig	<i>Garcinia pictorius</i>	Fruit	Wild Fruit
51	Jummimara	Badranga	<i>Fagaria budrunga</i>	Fruit	Pickle
52	Kayigenasu		Not known	Tuber	Additive with rice
✕ 53	Komme		<i>Zaleya decandra</i>	Fruit	Wild Fruit
✕ 54	Kaadu kondemara		<i>Archidendron mona delphum</i>	Fruit	Wild Fruit
55	Kannekudi	Kannegida, Hiribasale	<i>Polygonum chinense</i> SIS	Leaves	Additive with rice
✕ 56	Kadu shunti		<i>Zingiber zerumbet</i>	Rhizome	Spice
57	Kaaduadike	Pandavara adike	Pinnanga <i>Areca dicksonii</i>	Fruit	Chewing
✕ 58	Kuppasa Ganike	Putaphala	<i>Physalis minima</i>	Fruit, Leaves	Wild Fruit, Additive w
✕ 59	Kaadu Dalchinni		<i>Cinnamomum wigetii</i>	Fruit	Spice
60	Kaadu Arishina	Jangli haladi	<i>Curcuma zedoria</i>	Tuber	Herbal tea
61	Kaadu Kadale	Kadlangadde	<i>Sida retusa</i>	Whole plant	Additive with rice
✕ 62	Kachaargadde		<i>Zingiberaceae family</i>	Tuber	Additive with rice
✕ 63	Kadu menasu	Kalimirch, mire, wild pepper	<i>Piper nigrum</i>	Fruit	Spice
64	Kaddu bale	Kallu bale, Vana kadali	<i>Musa bulbisiana</i>	Stem	Additive with rice
65	Kahibevu	Nimba, Neem	<i>Azardiracta indica</i>	Leaves	Herbal tea
66	Kakke	Suvarnaka, Indian labernum	<i>Cassia fistula</i>	Leaves	Additive with rice
67	Kalale	Bamboo shoot	<i>Bamboosa spp</i>	Whole plant	Pickle
68	Karibevu	Barsanga, Krishna patre, curry l	<i>Murraya koenigii</i>	Leaves	Spice
69	Kesa	Aalukee, Kachu	<i>Colocasia esculenta</i>	Leaves	Additive with rice
70	Kachu	Kaggali, Chadira, Khaira	<i>Acasia catechu</i>	Bark	Other Uses
71	Kouli	Kabali, Karavanda, Karanda	<i>Carissa carandus</i>	Fruit	Pickle

Curcuma zedoria
Curcuma
aromatica

72	Kunnerlu	Nayi nerale	<i>Syzigium caryophyllum</i>	Fruit	Wild Fruit
73	Kuntanerlu	Guddanerale	<i>Elaeocarpus lancifolius</i>	Fruit	Additive with rice
74	Kuddebhaji		Not known	Tuber	Additive with rice
75	Madahaglu	Karchi balli, Janglikarel, Kartali	<i>Momordica dioica</i>	Fruit	Additive with rice
76	Marabaale	Vanda	<i>Saccolabium papillosum</i>	Fruit	Additive with rice
77	Maragenasu		<i>Manihot esculenta</i>	Tuber	Additive with rice
78	Marakesa	<i>Remusatia vivipara</i>	<i>Colocasia</i> spp <i>Remusatia</i> v	Leaves	Additive with rice
79	Mavu	Mango, Aam, Amba, amra	<i>Mangifera indica</i>	Fruit	Pickle
80	Murugalu	Punarpuli, Bhirinda, Muruvanah	<i>Garcinia indica</i>	Seeds	Edible Oil
81	Nelakanchi	Nelanimbe	<i>Naregamia alata</i>	Leaves	Additive with rice
82	Nachike gida	Lajjawanti, Lajjamachike,	<i>Mimosa pudica</i>	Whole plant	Additive with rice
83	Nelabevu	Chiretta, Kiratatikta, Knimba	<i>Swertia chirata</i>	Whole plant	Herbal tea
84	Nelanelli	Kirunelli, Bhoodatri	<i>Phyllanthus asperulatus</i>	Whole plant	Additive with rice
85	Nelli	Amla, amalaka, Embli myrobala	<i>Emblica officinalis</i>	Fruit	Pickle
86	Nerlu	Jambu, Jaman	<i>Syzigium cumini</i>	Fruit	Wild Fruit
87	Noregenasu	Kenta alu	<i>Dioscorea pentaphylla</i>	Tuber	Additive with rice
88	Nurkalu	Chironji, Cuddapah almond	<i>Buchanania lanzan</i>	Fruit	Wild Fruit
89	Ondelaga	Brahmi, Manduka parni, Uruge,	<i>Centella asiatica</i>	Whole plant	Additive with rice
90	Paragi	Kari mullehannu, Bahu kantaka	<i>Zyzypus oenoplia</i>	Fruit	Wild Fruit
91	Rampatre	Malbaar nutmeg,	<i>Myristica malbarica</i>	Fruit	Spice
92	Ranjalu	Bakula ,Pagade	<i>Mimusops elengi</i>	Fruit	Wild Fruit
93	Sanduballi	Asthi Shrinthala	<i>Cissus quadrangularis</i>	Plant	Additive with rice
94	Sambar soppu	Pod dipatre, Indian borage	<i>Coleus amboinicus</i>	Leaves	Additive with rice
96	Shatavaari	Shatamoli, Majjigegadde	<i>Asparagus racemosus</i>	Root	Herbal tea
97	Shivane	Gopabhadra, gamari	<i>Gmelina arborea</i>	Leaves	Herbal tea
98	Shreegandha	Sandalwood, Chandan	<i>Santalum album</i>	Leaves	Additive with rice
99	Sugandhi ballii	Sogadeberu, Naamadaberu, Ana	<i>Hemidesmus indicus</i>	Root	Herbal tea
100	Suvarnagadde	Soornakanda, Elephant foot yar	<i>Amorphophallus compamulatus</i>	Flower, Tuber	Additive with rice
101	Suruli kudi	Bilikonde	<i>Polygonum chinensis</i> 15	Leaves	Additive with rice
102	Tagate	Tagache, Tagasi, Sickle senna	<i>Cassia tora</i>	Whole plant	Additive with rice
103	Tulsi	Vishnu tulsi, Patra Pushpa,	<i>Ocimum sanctum</i>	Leaves	Herbal tea
104	Tumri leaves	Tupra, Beediele, tubare, Tendu	<i>Diospyros tupru</i>	Leaves	Other Uses
105	Uppage	Mantapuli, Uppangi, Seeme hur	<i>Garcinia gummi-gatta</i>	Seeds	Edible Oil
106	Vaatekayi	Vantimara, Undekayi	<i>Artocarpus lakoocha</i>	Fruit	Spice, Sour
107	Visuli bhaj		Not known	Tuber	Additive with rice
108	Taale	Palm tree			