

## Uncultivated Foods and the Poor

Zaheerabad region of Medak District in the South Indian State of Andhra Pradesh is situated in the semi arid tract. Lands here are rainfed and highly degraded. Soil depths in most places are less than 6 inches. Red soils dominate the land. Consequently productivity is abysmally low. Farmers feel extremely lucky if an acre of land produces two quintals of sorghum. Erratic rainfall which has become the hallmark of the last decade leaves even this level of productivity with a question mark seriously threatening the food security of the poor who mainly own these type of lands.

It is in this context that one should look at the agriculture of the poor and the role of uncultivated food in their lives.

Agriculture of the poor is characterized by the celebration of bio-diversity on their lands. A minimum of 8 to 12 crops is grown by them at the same time and space on their lands. The symbiotic relationship between these crops can be seen in a wide range of issues: soil management, fertility management, internal cycle of inputs, pest control, labour management, diet management, risk insurance and many others.

Outside of such materialistic issues, farmers also look at their agro bio-diversity from a spiritual point of view. The diversity on their fields is their way of celebrating nature and establishing a communion with it. In this celebration they not only see the role of their cultivated diversity but also the overwhelming contribution of the enormous diversity of uncultivated foods.

A major reason for this spiritual celebration of diversity is the fact that uncultivated foods, over the millennia have been the source of life for the poor. It has made up a part of the quantum of the food they consume as well as the major source of nutrition for them.

Many types of green leaves are consumed as vegetables, and most of them are rich sources of calcium, iron, carotene, vitamin c riboflavin and folic acid. These greens are inexpensive sources of many nutrients, which are essential for growth, and maintenance of normal health. Consumption of such greens in adequate amounts especially by pregnant and nursing women and by children should also be encouraged. If greens are included in the diet in adequate amounts the need for fruits as an essential item (which is relatively costly) in diet is much reduced.

Green leafy vegetable requirement per day in grams is as follows:

Adult woman	125 gms
Adult man	100-125 gms
Pregnant & lactating women	150 gms
Adolescent girls	150 gms
Adolescent boys	100 gms
School children	75 gms

Pre-school children

50 gms

An average intake of about 50 gms of greens provides the required amount of vitamin-A to the child. Regular intake of greens in such amount will also help to build up a store of the vitamin-A in the body to provide for the lean seasons. An intake of about 100 gms of a mixture of greens daily by pregnant woman will ensure adequate storage of vitamin-A in the liver of infants at birth. Consumption of adequate amounts of greens, which are rich in folic acid, helps to correct Megaloblastic anemia. Iron deficiency anemia can be prevented by daily consumption of greens. Most of the greens are alkali-producing foods, fiber to the diet. Greens are particular rich in riboflavin. In general greens are rich sources of calcium, iron, magnesium etc. In recognition of all above said merits practically every health and nutrition agency advises people to grow greens in kitchen gardens, nutrition gardens, school gardens, Bio-intensive kitchen gardens etc.

However what are people's practices, consumption patterns and food sources to access this most important component part of nutrition is an area that hardly attracts attention. Uncultivated Foods as the richest source of nutrition for the poor and as a unique practice of the poor to sustain their food security offer a wonderful opportunity for an exciting study.

The Deccan Development Society, a voluntary rural development organisation which has been working in Medak District since the last decade and half has been looking at the role of uncultivated foods specially in the lives of the poor.

Since 1989, the health workers of the society, have taken the lead in understanding this role of uncultivated foods in the lives of the poor. They have identified and classified over 80 uncultivated foods consisting of vegetables, greens and berries. A majority of these women are dalits and are at the lowest rung of the socio- economic ladder in their communities and work as farm labour to eke out a living. Therefore, the perspectives they bring are very significant from the point of view of gender and poverty.

The Deccan Development Society initiated another study during June 1999, which was exploratory in nature. To begin with the information regarding the uncultivated greens available during rainy season was documented in detail.

### **Uncultivated crops: Source of food for poor**

Most of the rural people especially the poor consume uncultivated crops at least 50-80 days in a year. Earlier it was eaten for more number of days. Poor while working in their fields gather these greens and bring them to house. Those who don't work go around the near by fields specially to gather these greens. Daggali Kooru, Gangavayeli, Sannavayeli and Pundi are consumed throughout the year. Pundi and Daggali Kooru are eaten more than 20 times in a year by some families. When monitorized each family consumes uncultivated crops worth Rs.500-1000 out of their total expenditure on vegetables is around Rs.1500 - Rs.2000 depending on family size. Some of the greens like Gunugu are sold as

green fodder in near by towns. Uncultivated foods like Chennangi, Soyikoora, Adonda and Adivikakarakaya are also sold in towns, as they are preferred by people in towns, as they are good for health. Greens like Talaili and Kashapandla chettu are never uprooted, as their availability is less and have high medicinal value. Even the landlords ask the labour not to weed these two plants, which shows its importance in the lives of people and their concerns to protect them. Kasapandla chettu is called "Davakhalnalen Mandu". "Mydkur Narasamma" of Metlakunta lives only by selling these uncultivated greens in "Bidar" a near by town. She is very old and has fracture in hand cannot work as labour and hence slowly collects these foods and sells in the town.

### **Chemical agriculture - reduced availability of uncultivated crops**

All the uncultivated greens are present mostly in Farm Yard Manure applied fields or in fields where chemical fertilizers are not applied. Very few greens are seen in chemical fertilizer applied fields as they die when they are young due to burning effect. Due to this only half of what use to be available previously is available now. In fertilizer applied fields greens are picked only after one or two irrigation which causes fresh leaf growth other wise it is not safe for health says 'Narasamma of Kalbema village'. In pesticide fields greens are not collected.

### **Utility of uncultivated crops during famines**

Past history clearly indicates that uncultivated foods had a major share in the food consumed during famines and stress periods. In Zaheerabad region when there was famine 18 years ago people survived for 4 months by eating only these uncultivated greens specially Doggalikoora, Gangavayeli, Sannavayeli, Pundi, Gunugu Koora, Uttareni and Kapringa Pandlu. People ate more of curries made of these greens and negligible roti and rice. Pundi was even mixed in Jowar flour and rotis were made, as there was not enough flour. Poor people used to go for well digging and well restoration and collected these greens from near by sugarcane fields.

### **Uncultivated foods are tasty**

They are tastier. 'Santoshamma' of Basanthpur village says that Doggalikoora is more nutritious than broiler egg is. Some time's different leaves of uncultivated greens are cooked together. These foods do not need any species except a little bit of oil but still they are tastier according to Seshamma of Algole village. Sometimes leaves of these greens are cooked by adding little bit of onion. Generally they are mixed with gram dal, Redgram dal, lentil dal and greengram dal.

### **High medicinal value of uncultivated crops**

Uncultivated crops play a key role in the health care of poor people. They utilise these greens in different forms like curry, leaf extracts and tablets etc. to cure

common ailments like headache, swellings, wounds, scabies, improper digestion and major diseases like jaundice and diabetes.

Atteli koora when fed to postnatal mothers improves breast milk availability to infants. When lactating mothers eat pundi it is good for infants as it keeps their stomach free. Uncultivated plants like Kashapandla chettu is called "Davakhana leni Mandu" by people.

### **What is uncultivated food?**

In the study, we have used word "uncultivated" in a more general way to denote either of the following three categories.

- The greens from land that are not cultivated such as plant, creeper etc.
- The greens that are not cultivated but are available as per partner crop in a cultivated field etc.
- The greens that are available from cultivated plants, but the product was not the explicit objective of the cultivation.

### **Methodology**

A preliminary study was done in 10 villages of Zaheerabad region. Information collection comprised mainly of observation and open ended discussions. Small group meetings with women were organized to understand the collective knowledge of women from the disadvantaged section. Detailed information was collected about uncultivated foods available during rainy season and same method will be followed for uncultivated foods during winter and summer season. DDS field staff and Sangam Karyakarthis facilitated this study whereas women members of the sangam were resource persons.

#### Classification of uncultivated foods

They are classified according to seasonal availability and their occurrence in irrigated and dry land conditions. Some of these foods are available in rainy and winter season and a few throughout the year. Leaves and flowers of some trees which are also consumed as foods are listed separately.

#### Classification of uncultivated foods according to seasonal availability

### **Rainy season (June to September)**

No.	Local name	Scientific name
1	<a href="#">Doggali Koora</a>	Amaranthus polygamus
2	Yennadri	
3	Peddakasha pandla koora	Solanum nigrum
4	YelakachevulaKoora	Merremia emarginata
5	Gurmasi Koora	

6	Tella pundi	Hibiscus cannabinus
7	Sannavayili Koorā	
8	Kapringa pandlu	Lycopersicum esculentum wild
9	Ponnaganti Koorā	Alternanthera sessilis
10	Igda Koorā	Cyanotis auxillaris
11	Teeta koyila Koorā	Mucuna pruriens
12	Shyama Koorā	Colocasia antiquorum
13	Tagiranča	Cassia tora
14	KodijutuKoorā (rajgiriKoorā)	Celoria cristata
15	Adivimentam Koorā	Trigonella foenumgraecum
16	Pittya Thalākaya Koorā	
17	Adivi pulla Koorā	Oxalis corniculata
18	Erra Pundi	Hibiscus cannabinus
19	Gangavayeli Koorā	Portulaca oleracea
20	Atteli Koorā	
21	Gormadi Koorā	Enicostema hyssopifolium
22	Chiekkudu Aaku Koorā	Cyamopsis tetragonolaba
23	Budumakaya	
24	Nalla Doggali (usike doggali)	Amaranthus sps.
25	TummiKoorā	Leucas aspera
26	Chinna kasapandla koorā	Solanum nigrum
27	Adivi soya Koorā	Aurthum graveolus wild
28	Gunugu Koorā	Celosia argentia
29	Uttareni Koorā	Achyranthes aspera
30	Chennangi Aaku	Lagerstoemia parviflora
31	Talaili Koorā	
32	Mullu Doggali	Amaranthus spinosus
33	Sukkha benda	Abelmoscus ficulmias
34	Thota Koorā	Amaranthus
35	Tella garjala Koorā	Trianthema decandra
36	VomaKoorā	Trachyspermum ammi

### Creepers

No.	Local name	Scientific name
1	Ataka mamidi Koorā	Boerhavia diffusa

2	Chinna kakarakaya	Mormordica charantica
3	Polapatram	Gymnema sylvestre
4	Tella Bacchali	Spinach olceracea
5	Tondaku	
6	Doosari Teega	Cocculus hirsutus
7	Anupa puvvu	Dolichos lablab
8	Nalla Bacchli	Basella sp.
9	Adivi kakarakaya	Mormordica charantica
10	Adivi chemmakaya	Canavalia gladiata
11	Bebber kaya	Vigna sinensis
12	Angi Bingi Aaku	
13	Erra Bacchali	Basella rubra

### Summer

No.	Local name	Scientific name
1	Talaili Koora	
2	Sannavayeli Koora	
3	Gangavayeli Koora	Portulaca oleracea
4	Pundi Koora	Hibiscus cannabinus
5	Shyama Koora	Colocasia antiquorum
6	Pulla Koora	Oxalis corniculata
7	Gormadi Koora	Enicostema hyssopifolium
8	Ponaganti Koora	Alternanthera sessilis
9	Doggali Koora	Amaranthus polygamus
10	Nalla Doggali	Amaranthus sp.
11	Chilka Koora	Amaranthus viridis
12	Kodi juttu Koora	Celosia cristata
13	Teeta Koyala Koora	Mucuna pruriens
14	Chennangi Chettu	Lagerstoemia parviflora

### List of trees whose leaves and flowers are cooked are available throughout year

No.	Local name	Scientific name
1	Munuga Aaku	Moringa oleifera
2	Avisha Koora (Kaya and flowers)	Sesbania grandiflora

3	Tellarjam	
4	Sada puvvu	<i>Sesbania egyptica</i>
5	Ryala puvvu	<i>Cassia fistula</i>
6	Tangedu puvvu	<i>Cassia ariculata</i>
7	Medi pandla Koora	<i>Ficus racemosa</i>

Classification according to occurrence in irrigated and rainfed conditions

Some uncultivated foods are available both in irrigated and dry lands and some only in any one of these situations. The classification is as follows:

### Dry lands

No.	Local name	Scientific name
1	Taduka dobbudu	
2	Doggali Koora	<i>Amaranthus polygamus</i>
3	Ganagvayeli Koora	<i>Portulaca oleracea</i>
4	Adivi Mentham Koora	<i>Trigonella foenum-graecum wild</i>
5	Pappu Koora	<i>Portulaca sps</i>
6	Kusuma Koora	<i>Carthamus tinctorius</i>
7	Shanega Koora	<i>Cicer arietinum</i>
8	Yelukachevula Koora	<i>Merremia emarginata</i>
9	Kashapandla Koora	<i>Solanum nigrum</i>
10	Chinta Aaku	<i>Tamarindus indicus</i>
11	Igda Koora	<i>Cyanotis auxillaris</i>
12	Avakoora	<i>Brassica nigra</i>
13	Vulligadda Koora	<i>Allium cepa</i>
14	Talaili	
15	Pundi	<i>Hibiscus cannabinus</i>
16	Yennadri	
17	Tagirancha	<i>Cassia tora</i>
18	Thummi Koora	<i>Leucas aspera</i>
19	Mullu Doggali Koora	<i>Amaranthus spinosus</i>
20	Kodi juttu Koora	<i>Celosia cristata</i>
21	Chinna Kashapandlu	<i>Solanum nigrum</i>
22	Pedd Kashapandlu	<i>Solanum nigrum</i>
23	Adivi Mentham Koora	<i>Trigonella foenum-graecum wild</i>

24	Adivi Soyi Koora	Aurthum graveolus wild
25	Pittya thalakaya Koora	
26	Gunugu Koora	Celosia argentia
27	Jonna Chenchali	Digera arvensis
28	Gurmash	
29	Adivi Pulla Koora	Oxalis corniculata
30	Uttareni	Achyranthes aspera
31	Tella Pundi	Hibiscus cannabinus
32	Nalla Pundi	Hibiscus sps.
33	Chennangi Aaku	Lagerstoemia parviflora
34	Kapringa pandlu	Lycopersicum esculentum wild
35	Atteli Koora	
36	Budumakaya	Cucumis sps
37	Tella garijala Koora	Trianthema decandra
38	Nalla Doggali	Amaranthus sps.
39	Sukkha Bhenda	Abelmosus ficulmias
40	Teeta Koyila Koora	Mucuna pruriens
41	Thota Koora	Amaranthus sps.

### Irrigated lands

No.	Local name	Scientific name
1	Yennadri	
2	Tagirancha	Cassisa tora
3	Tummi Koora	Leucas aspera
	Doggali Koora	Amaranthus polygamus
	Kodijuttu Koora	Celosia cristata
	Chinna kashapandlu	Solanum nigrum
	Pedda Kashapandlu	Solanum nigurm
	Yeluka chevula Koora	Merremia emarginata
	Adivi Pulla Koora (puli chinta)	Oxalis corniculata
	Tella pundi	Hibiscus cannabinus
	Erra pundi	Hibiscus sps.
	Chennangi	Lagerstoemia parviflora
	Sannavayeli Koora	
	Gangavayeli Koora	Portulaca oleracea



Talaili Koora	<i>Lycopersicum esculentum</i> wild
Kapringa pandlu	<i>Amaranthus spinosus</i>
Mullu Doggali	<i>Cucumis</i> sps.
Budumakaya	<i>Colocasia antiquorum</i>
Shyama Koora	<i>Amaranthus</i> sps.
Nalla Doggali	<i>Alternanthera sessilis</i>
Ponnaganti Koora	<i>Enicostema hyssopifolium</i>
Gormadi Koora	<i>Cyamopsis tetragonoloba</i>
Chikkudu Aaku Koora	<i>Amaranthus</i> sps.
Thota Koora	<i>Amaranthus viridis</i>
Chiluka Koora	<i>Cicer arietinum</i>
Shanega Koora	<i>Brassica nigra</i>
Ava Koora	
Adyam Koora	
Vulli porka	<i>Allium cepa</i>
Elligadda porka	<i>Allium sativum</i>

Detailed information about each of the items of uncultivated foods collected on the following aspects.

- Local name
- Habitat
- Season of availability
- Method of collection
- Edible part
- Process of cooking
- Consumption during famine or stress periods
- Utility as fodder
- Propagation
- Rituals
- Medicinal uses
- Social relation
- Economic value

These uncultivated greens are some times cooked in combination with other greens.