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Traditional Knowledge on Uncultivated Green Leafy Vegetables (UCGLVS) Used in Nalgonda District of Telangana

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Abstract

The present study data on traditional knowledge and identification of uncultivated edible greens (UCGLVs) used by the people of Nalgonda district, Telangana state, India was carried out through a structured questionnaire. The data was collected from three selected villages and 90 farm women were interviewed. The compiled information shows that 22 wild edible plant species belong to 19 genera and 14 families were identified from Nalgonda district, Telangana state. Among the identified plants, most of the plants species belongs to Amaranthaceae family. People are still consuming these wild greens during their availability due to several reasons like taste, nutritious, healthy, pesticide free, free of cost and easy availability. These UCGLVs were used in traditional medicine to treat many diseases like piles, constipation, anaemia, injuries, kidney problems, back pain problems, bleeding nose and some allergies. Even though there are many health, nutritional and economical benefits with the consumption of UCGLVs, some people are not using these uncultivated green leafy vegetables presently. Reasons like increased food production, markets, availability of food, urbanization, modernization, lack of knowledge on uncultivated food, unacceptability of taste, plant infestation during rainy season and some beliefs of the people was responsible for the underutilization of uncommon green leafy vegetables. Creating awareness on uncultivated greens, their health benefits and the provision of nutritional data helps to increase dietary diversity, improves health and decrease the burden of micronutrient deficiencies.

Keywords: Nutritious, traditional knowledge, uncultivated green leafy vegetable

1. Introduction

United Nations sustainable development goals namely no poverty, zero hunger, good health and wellbeing are difficult to achieve simply by maximizing the food production with the limited natural resources (Hunter et al., 2018). Extensive usage of some important resources which are governing the agricultural production are already in thinning state (Singh et al., 2019). One more important impediment for the food production is climate change, as it negatively affecting the availability, quality and quantity of agricultural production (Parodi et al., 2018). In order to meet the demands of increasing population we need to improve food production to 70% by 2050. So, there is growing demand for the cultivation of high resilient, low resource intensive and nutritionally rich

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crops which are important for the environmental sustainability and human wellbeing. In this view, domestication and exploitation of uncultivated crops with efficient utilisation of natural resources provide a promising future food security with high nutritional value (Singh et al., 2019).

Indeed WHO (2002) has reported that a low intake of vegetables and fruits are not only leading to risk of micronutrient deficiencies they are also causing 2.8% of deaths worldwide. The WHO further restated that eating a variety of fruits and vegetables clearly ensures an adequate intake of most micronutrients, dietary fibres and a host of essential non-nutrient substances that could help to prevent major non communicable diseases (NCD). These contentions are pointers to the fact that there is an urgent need to explore the underutilised species plant that habitat in our environment, in order to address the issues of malnutrition with potential nutraceutical properties and health benefits (Bello, 2014). Since ancient times green leafy vegetables are used as source of food, as they are the good source of nutrients that helps to maintain health of humans (Gowthami et al., 2016).

Since ancient times green leafy vegetables were used as a source of food. As they were a good source of nutrients and helps to maintain the health of humans. India was blessed with rich biodiversity, it has about 45000 wild species and among which 9500 species were ethnobotanically important. More than 400 g of vegetables per person was recommended by WHO to protect from diet-related chronic diseases. Being rich in nutrients and cheapest, green leafy vegetables were in the reach of the poor man (Gowthami et al*.,* 2016). The collection of food from wild sources is closely associated with humanity millions of years ago and that helped people to develop knowledge about the environment and diverse source of plant and animal-based foods (Ray et al., 2020). Wild plant species provide diversity to the local food system, household food security, nutrition security, income generation and reinforce culture (Aryal et al*.,* 2009).

Wild edible plants were neither cultivated nor domesticated easily available from natural habitats. Poor assess to food and low food intake are unresolved problems in underdeveloped countries. To feed this excess of undernourished people, use of uncultivated wild species is helpful than only depending on increasing production of a limited number of cultivated species (Bandana and Debabrata, 2015). Wild greens are good sources of nutrients like carbohydrates, β-carotene, ascorbic acid, folic acid, riboflavin, calcium, iron, zinc, copper, manganese, phosphorus and antinutrients. Throughout the world wild, semi cultivated species are of important research area of nutritional and phyto-therapic research due to their nutraceutical and antioxidant values (Couladis et al*.,* 2003).

The objectives of the present study were to collect information on the uncultivated green leafy vegetables used by the rural areas of Nalgonda district from Telangana state.

2. Materials and Methods

2.1. Area and samples

A study was conducted during June-July (2020) to collect data on traditional knowledge and identification of uncultivated edible greens (UCGLVs) used by the people of Nalgonda district, Telangana state, India. A total of 90 farm and household women who knew uncultivated greens were randomly selected from 3 selected villages namely; Ammanabolu, Bajakunta and Kunkudupamula of Nalgonda district. The district is situated between 78°40’ and 80°05’E, of the eastern longitudes and 16°25’ and 17°60’N, of Northern latitudes. Three villages: of Nalgonda district, Telangana state were randomly selected for the present study

Traditional knowledge on uncultivated greens such as local names, seasonal availability, preparation, mode and frequency of consumption, reasons for their utilisation in the diet and their perception towards uncultivated greens in health and disease was collected by household surveys by structured questionnaire, field visits and group discussions with the local people.

2.2. Identification of leafy vegetables

Identification of UCGLVs was done through transect walk and methodical collection of plant sample was also carried to prepare an herbarium of all UCGLVs besides photo documentation. From the existing data sources, the botanical name of UCGLVs was obtained and documented. The botanical names were confirmed with the help of a taxonomist.

2.3. Statistical analysis

Data were analysed statistically and presented in the form of tables and graphs.

3. Results and Discussion

3.1. Identification of uncultivated green leafy vegetables

Green leafy vegetables are very important among the foods as they are a good source of vitamins and minerals for human beings. Dark greens are nutrient-rich than light coloured vegetables. Uncultivated greens are weeds that grow in farms and some of them are considered more ominous than others as they reduce yield. The present study identified 22 edible uncultivated species belongs to 19 genera and 14 families. Among the identified plants, the highest plants found in Amaranthaceae family (27.3%) and Amaranthus (13.63%) genus. The majority of the UCGLVs belong to herb and creeper plant type. Every rainy season they grow on their own along with the crops and available for 3-4 months starting from late June to December. In most of the UCGLVs, the edible part is leaf and stems whereas in some cases seeds and roots are also edible (Table 1).

Amaranthaceae family contains approximately 800 species and 60 plus genera. This family consists of trees, shrubs, vines but dominated by herbs (Basu et al., 2014).

Table 1: Identification of uncultivated green leafy vegetables

Sl. No.	Local name	Scientific name	Family	Genus	Part used	Mode of usage
1.	Gunagu	*Celosia argentea* Ref: (Divya et al., 2019)	Amaranthaceae	Celosia	Leaf	Curry with pulses
2.	Kodijuttu kura	*Amaranthus viridis* L. Ref: (Sowjanya et al., 2014)	Amaranthaceae	Amaranthus	Leaf	Curry with pulses and garlic
3.	Payalikura	*Portulaca oleracea* L. Refa; (Azuka et al., 2014)	Portulacaceae	portulacae L.	Leaf	Curry with pulses and tomato
4.	Mulla doggali	*Amaranthus spinosus* L. Ref: (Sable and Saswade., 2017)	Amaranthaceae	Amaranthus	Leaf	Curry with pulses and garlic
5.	Uttareni	*Achyranthes aspera* L. Ref: (Lakshmi et al., 2018)	Amaranthaceae	Achyranthes	Leaf, stem	Curry with pulses
6.	Rokali banda aku	*Anisochilus carnosus* (L.f.) Benth. Ref: (Shetty et al., 2017)	Lamiaceae	Anisochilus	Leaf	Curry with pulses
7.	Nela thangedu	*Senna italica* (Mill.) Ref: (Mohammed and Mahdi, 2008)	Fabaceae	Senna	Leaf and root	Chutney with tamarind
8.	Thalakati kura	*Cleome gynandra* L. Ref: (Shilla et al., 2019)	Cleomaceae	Cleome	Leaf and root	Curry with pulses
9.	Shibbithegala/ Pathalaberi aku	*Cocculus hirsutus*, Ref: (Marya and Bothara, 2011)	Menispermaceae	Cocculus	Leaf	Curry with garlic
10.	Chanchalaaku	*Digera muricata* (L.) Mart Ref: (Khan and Ahmed, 2009)	Amaranthaceae	Digera Forssk	Leaf	Curry with pulses and garlic
11.	Thooti kura	*Ipomoea aquatica* Forssk. Ref: (umar et al., 2007)	Convolvulaceae	Ipomea	Leaf	Curry with pulses and tamarind
12.	Thummi kura	*Leucas aspera* (Willd.) Link Ref: (Prajapati et al., 2010)	Labiatae	Leucas	Leaf	Curry with garlic and pulses
13.	Boddi kura	*Rivea ornata Choisy* Ref: (Pankaj et al., 2016)	Convolvulaceae	Rivea	Leaf	Curry with garlic
14.	Thella ganjeeru	*Trianthema decandra* L. Ref: (Prakash et al., 2019)	Aizoaceae	Trianthema L.	Leaf	Curry with garlic and pulses
15.	Erra ganjeru	*Trianthema portulacastrum* L. Ref; (Das et al., 2020)	Aizoaceae	Trianthema	Leaf	Curry with pulses and garlic
16.	Palleru	*Tribulus terrestris* L. (Chhatre et al., 2014)	Zygophyllaceae	Tribulus	Leaf and seeds	Curry with garlic
17.	Thella budda goshi	*Physalis minima* Ref: (Chothani and Vaghasiya, 2012)	Solanaceae	Physalis	Leaf	Curry with pulses
18.	Sirri kura	*Amaranthus polygonoides* Ref: (Naveena et al., 2012)	Amaranthaecae	Amaranthus	Leaf	Curry with pulses and garlic
19.	Bankonti kura	*Corchorus olitorius* Ref: (Sinha et al., 2011).	Malvaceae (formerly Tiliaceae)	Corchorus	Leaf	Curry with garlic
20.	Guntagaragadaaku	*Eclipta prostrata* Linn. Ref: (Jahan et al., 2014)	Asteraceae	Eclipta L.	Leaf	Chutney
21.	Gunumalaaku	*Mirabilis jalapa* Ref: (Singh et al., 2012)	Nyctagenaceae Mirabilis jalapa	Mirabilis	Leaf	Curry with pulses
22.	Pindi kura	*Aerva lanata* Ref: (Athira and Nair, 2017)	Amaranthaceae	Aerva	Leaf	Curry with garlic

Now a day's transfer of knowledge from generation to generation about UCGLVs was decreased and all are turned to use cultivated leafy vegetables. When the respondents were asked about the UCGLVs the response was different in the selected three villages. The 90 selected farm women from the villages of Nalgonda district were asked to list out the UNGLVs they know. All together 22 UCGLVs were listed out by the respondents as given in Table 1. In Kunkudupamula village 80% of women said that they know about Pindi kura (*Aerva lanata*) 66.7% know Gunugu (*Celosia argentea*), and 16% of them said about Payalakura (*Portulaca oleracea* L.) and Thimmi kura *(Leucas aspera*). Whereas in Ammanabolu village 66.7% of farm women said that they know about the Pindi kura (Aerva lanata) and 50% of them listed Gunugu (*Celosia argentea*) and Payalakura (*Portulaca oleracea* L.). In Bajakunta village 83% of women said that they know about Pindi kura (*Aerva lanata*) and 73% know about Gunugu (*Celosia argentea*) and 23% responded to Bankonti kura (*Corchorus olitorius*). Overall, together in all villages, 76% of them know Pindi kura, 57% of them know about Gunugu and 56% of them know about Bankanti kura. Out of 22 listed leafy vegetables around 5 GLV were listed by very few respondents (Thella budda goshi, Gunumalaku, Thalakati kura, Siri kura and Rokali banda aku kura. Among all the identified leafy vegetables from three villages Pindi kura ranks top followed by Gunagu, Bankanti, Thimmi kura, Thella ganjeru kura and least known were Boddi kura, Thella budda Goshi and Gunumalaaku (Table 2).

3.2. Responses on present utilization of UCGVLs

In the olden days due to less food production/yield and availability almost all available green leaves were included in their diet and consumed in various forms for different food and health purposes. But their utilization was gradually decreased and nowadays many people not even know about them. So, to find the information on the usage status of uncultivated greens, respondents were asked about the

Table 2: Farm women's response on uncultivated green leafy vegetables

Sl. No.	Name of the vegetable	Name of the village			Total
		Kunkudupamula village (%)	Ammanabolu village number (%)	Bajakunta village number (%)	Number (%)
1.	*Tribulus terrestris* L. (Palleru)	14 (46.66%)	09 (30.00%)	90 (30.00%)	32 (35.55%)
2.	*Amaranthus viridis* L. (Kodijuttu kura)	11 (36.66%)	07 (23.33%)	13 (43.33%)	31 (34.44%)
3.	*Portulaca oleracea* L. (Payalakura)	16 (53.33%)	15 (50.00%)	07 (23.33%)	38 (42.22%)
4.	*Leucas aspera* (Thimmi kura)	16 (53.33%)	10 (33.33%)	17 (56.66%)	43 (47.77%)
5.	*Celosia argentea* (Gunagu)	20 (66.66%)	15 (50.00%)	22 (73.33%)	57 (63.33%)
6.	*Trianthema portulacastrum* L. (Era ganjeru kura)	07 (23.33%)	03 (10.00%)	05 (16.66%)	15 (16.66%)
7.	*Aerva lanata* (Pindi kura)	24 (80.00%)	20 (66.66%)	25 (83.33%)	69 (76.66%)
8.	*Trianthema decandra* L. (Thella ganjeru)	10 (33.33%)	14 (46.66%)	16 (53.33%)	40 (44.44%)
9.	*Achyranthes aspera* L. (Uttareni aku)	08 (26.66%)	08 (26.66%)	07 (23.33%)	23 (25.55%)
10.	*Digera muricata* (L.) Mart (Thooti kura)	09 (30.00%)	04 (13.33%)	03 (10.00%)	16 (17.77%)
11.	*Corchorus olitorius* (Bankonti kura)	14 (46.66%)	19 (63.33%)	23 (76.66%)	56 (62.22%)
12.	*Rivea ornata Choisy* (Boddi kura)	03 (10.00%)	05 (16.66%)	03 (10.00%)	11 (12.22%)
13.	*Physalis minima* (Thella budda goshi)	01 (03.33%)	01 (03.33%)	01 (03.33%)	03 (03.33%)
14.	*Digera muricata* (L.) Mart (Chanchalaku)	05 (16.66%)	08 (26.66%)	09 (30.00%)	22 (24.44%)
15.	*Eclipta prostrata* Linn. (Guntaragadaaku)	04 (13.33%)	01 (03.33%)	04 (13.33%)	09 (10.00%)
16.	*Senna italica* (Mill.) (Nela thangedu)	08 (26.66%)	06 (20.00%)	09 (30.00%)	23 (25.55%)
17.	*Cocculus hirsutus* (Shibbithegala aaku kura/ pathalaberi kura)	06 (20.00%)	05 (16.66%)	03 (10%)	13 (14.44%)
18.	*Amaranthus spinosus* L. (Mulla doggala kura)	02 (6.66%)	04 (13.33%)	05 (16.66%)	11 (12.22%)
19.	Amaranthus polygonoides (Siri kura)	05 (16.66%)	01 (03.33%)	02 (6.66%)	08 (08.88%)
20.	*Anisochilus carnosus* (L.f.) Benth (Rokali banda aku kura)	04 (13.33%)	01 (03.33%)	03 (10.00%)	08 (08.88%)
21.	*Mirabilis jalapa* (Gunumalaku)	02 (6.66%)	02 (06.66%)	01 (03.33%)	05 (05.55%)
22.	*Cleome gynandra* L. (Thalakati kura)	01 (3.33%)	02 (06.66%)	05 (16.66%)	08 (08.88%)

present consumption of uncultivated greens. It was found that 50% of people from Kunkudupamula village are still consuming uncultivated greens. Whereas 43.3% of Bajakunta people and 40% of people from Ammanabolu are using uncultivated greens at present also. It was observed that Kunkudupamula village people are consuming more uncultivated greens followed by Bajakunta and Ammanabolu. Among all three villages, 44.4% of people were responded that they are still consuming uncultivated edible greens during their availability whereas 55.6% of people were not using them currently (Figure 1).

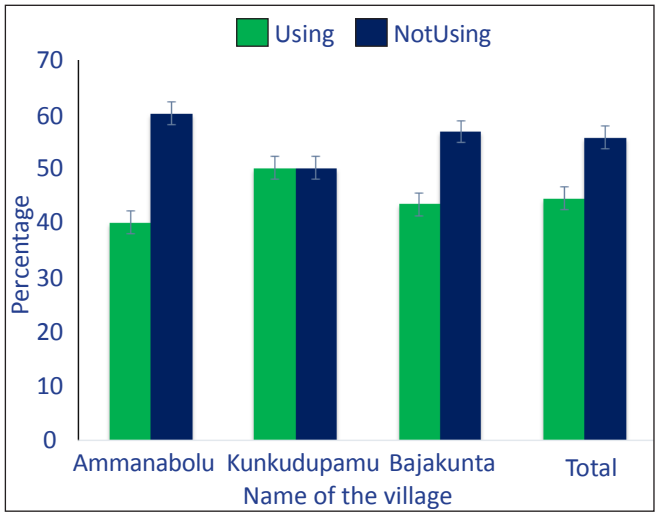

Figure 1: Percentage of responses on utilization of UCGLV

3.3. Responses for not using of UCGLV's

There are so many reasons for decreased utilization of uncultivated greens like increased food production, markets, availability of food, urbanization, modernization and lack of knowledge on uncultivated food. Farm women response to reasons for not utilization of uncultivated greens was presented in Figure 2. About 40% of respondents mentioned that they were not used because of the lack of availability

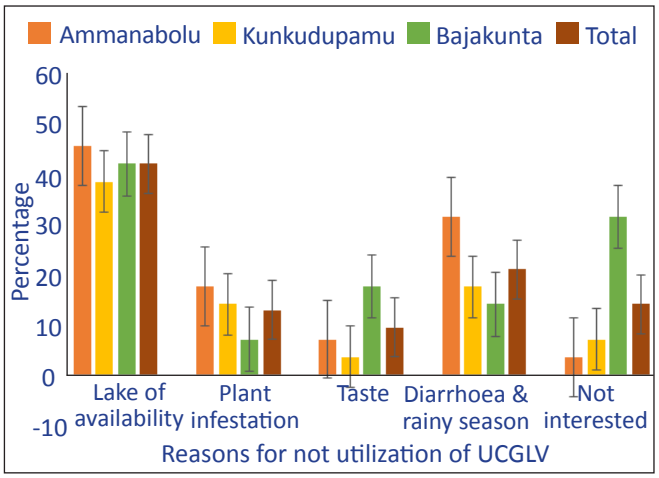

Figure 2: Percentage of responses on not using uncultivated green leafy vegetables in present days

of uncultivated greens. Usually, wild uncultivated greens grow in forest areas and wastelands. But nowadays most of the forest and wastelands are cleared due to various reasons like increased demand for the land, cultivation and industrialization and so gradually wild leaves availability was also decreased. About 12.2% of people stated that they are not using because of plant infestation that occurs mostly during the rainy season. Whereas 8.9% of women responded they don't like the taste of wild greens, 13.3% are not interested to eat. About 20% of them had a belief that consumption of green leafy vegetables causes diarrhoea during the rainy season.

3.4. Responses for utilization of UCGLV's

Most of the people living in rural areas was still using some uncultivated greens as they become part of their culture and tradition. Some leaves like *Aerva lanata and Leucas aspera* were used during some festivals like Sankrathi, Bathukamma and Vinayaka chavithi. The reasons for the utilization of UCGLVs by farm women are presented in Figure 3. Most of them (47.8%) consuming UCGLV because they are healthy. About 30% of the women said they are consuming because they like the taste of uncultivated greens compared to cultivated greens. Most women responded that they like the taste of Bankanti kura, Pindi kura and Ganjeru kura. A total of 13.3% of women responded that they are highly nutritious and medicinally important. Only a few people reported that they are consuming presently because they are cost-free (10%) and easily available (5.55%) from nature.

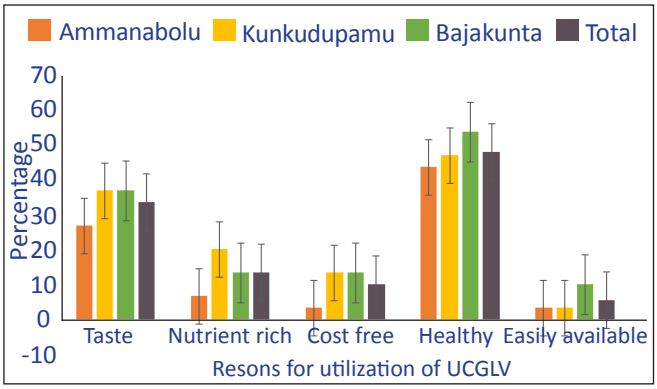

Figure 3: Percentage of responses on using uncultivated green leafy vegetables in present days

3.5. Frequency of consumption of UCGLV

People who are consuming uncultivated greens presently also were asked for the frequency of consumption per week. Responses given by the farm women were given in Figure 4. It was found that 14.4% of people are consuming once a week whereas 16.7% taking twice, 17.8% of people consuming rarely and during availability. Altogether 55.6% of people are not consuming presently due to many reasons like lack of availability, taste, some false beliefs, lack of knowledge on their usage, health benefits, increased availability of

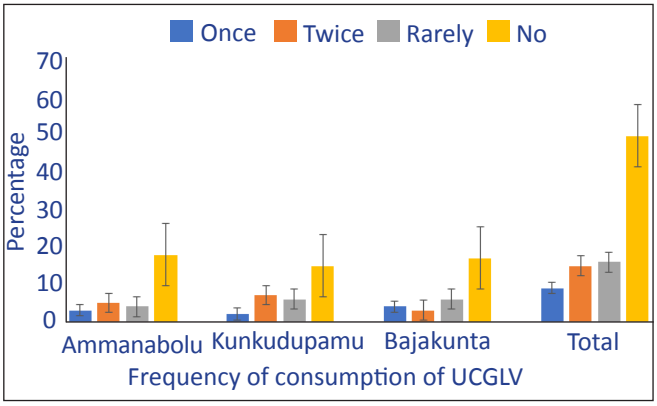

Figure 4: Frequency of consumption of UCGLVs

commercial green and other leafy vegetables, modernization, lack of availability of nutritional data and full potential of wild green leafy vegetables. In all selected villages Bajakunta people are highly consuming wild greens once (13.3%) in a week followed by Ammanabolu and Kunkudupamula.

3.6. Perception of people towards uncultivated greens

To find the Perception of people towards uncultivated greens respondents were asked whether cultivated or uncultivated good for health and why they are good for Health. It was found that almost all the people even though they are not using presently reported that uncultivated greens are healthy compared to cultivated greens. Altogether 71% of respondents said they are pesticide-free, 31% of them said they can be used to cure particular diseased conditions. Whereas 76.7% of people responded that they are pesticide residue-free and good for health. About 36.7% of people were responded that they had good nutritional properties and 15.6% mentioned they had good medicinal properties. In the olden days when medicine was not available wild uncultivated plants played a very important role to cure many health-related problems (Figure 5).

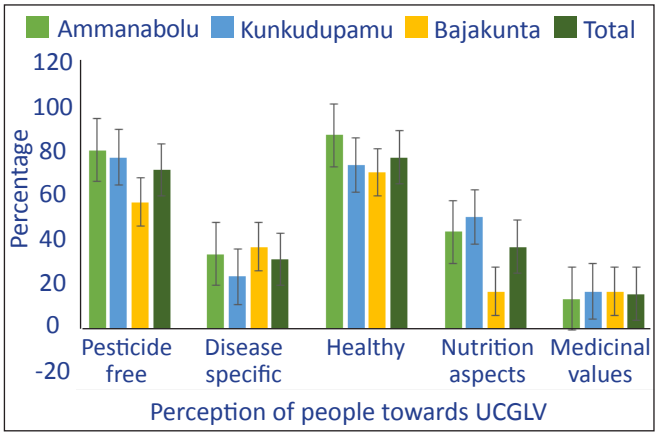

Figure 5: Reasons for consumption of UCGLV's

3.7. Perception of people towards health benefits of uncultivated greens

The responses from the farm women regarding the health benefits of these green leafy vegetables were also collected and shared below:

Gunugu (*Celosia argentea*) is commonly known as plumed cockscomb. It was an herbaceous plant of tropical origin that belongs to Amaranthaceae family. *Celosia argentea* is an important leafy vegetable with high nutritional value and so, various parts of the plant are used in the preparation of soups, sauces and used with other vegetables (Tang et al., 2016). This plant was used as a green leafy vegetable and also used in the treatment of bee bites, bleeding nose and piles.

Kodijuttu kura (*Amaranthus viridis* L.) is an annual herb belongs to Amaranthaceae family and Amaranthus genus. The plant is used as a green leafy vegetable and used for the treatment of arthritis, constipation and rashes.

Payallikura (*Portulaca oleracea* L.) belongs to Portulacaceae family commonly grows in gardens, waste areas, riverbanks and beaches (Azuka et al., 2014). The plant was used as a green leafy vegetable and consumed in the form of cooking with pulses, tomato and tamarind to increase haemoglobin level.

Mulla doggali (*Amaranthus spinosus* L.) is an annual or perennial herb belongs to Amaranthaceae family. It is available in all tropical, subtropical areas of Africa, USA, Asia and India (Asha et al., 2016). The plant was used as a leafy vegetable and cooked in combination with pulses and garlic. People usually consume this plant during constipation and to increase haemoglobin level.

Uttareni (*Achyranthes aspera* L.) is available throughout India as a weed and almost all parts of the plant had importance in the traditional medicine (Srivastav et al., 2011). The plant is consumed with pulses and is used to treat kidney stones, cough, cold, digestive problems, to stop bleeding and the plant stem is used for brushing to make teeth strong.

Rokali banda aku (*Anisochilus carnosus* (*L.f.*) *Benth*) is an annual herbaceous plant belongs to Lamiaceae family, usually grows amid small rocks (Shetty et al., 2017). The plant is cooked with pulses and consumed as a leafy vegetable. The plant is used to treat cough and stomach ulcers.

Nela thangedu (*Senna italica* (Mill.) also called as *Cassia italica*. It is a perennial herb or shrub belongs to Fabaceae family grew up to 50–75 cm height. The whole plant is used in traditional medicine to treat various diseases (Barathi et al., 2018). Leaves of the plant were used to prepare chutney with tamarind. Leaf's powder consumed to prevent constipation and roots are used to treat allergies.

Thalakati kura (*Cleome gynandra* L.) is available throughout the world as a weed belongs to Cleomaceae family. It was used in traditional medicine to treat many diseases (Adhikari and Paul., 2017). It was used as a leafy vegetable and consumed with pulses. Oil boiled with its roots was used to treat ear, eye and headache problems.

Shibbithegala/ Pathalaberi aku (*Cocculus hirsutus*) a climbing scandent shrub that belongs to Menispermaceae (Logesh et

al., 2020). The plant was cooked with garlic and consumed as a leafy vegetable. It was used to treat constipation and to improve the haemoglobin level in the body.

Chanchalaaku (*Digera muricata* L.) Mart is an annual herb belongs to Amaranthaceae family and available all over India as a weed. It is a leafy vegetable used to increase haemoglobin level and also used as animal fodder.

Thooti kura (*Ipomoea aquatica* Forssk) is also called water spinach belongs to Convolvulaceae family. It was consumed in the form of cooking with pulses and tamarind to increase haemoglobin level.

Thimmi kura (*Leucas aspera*) belongs to genus leucas and family Lamiaceae available entire India from Himalayas to down Ceylon (Prajapati et al., 2010). It was consumed with pulses and garlic especially during festivals like Vinayaka chavithi.

Boddi kura (*Rivea ornata* Choisy) belongs to family Convolvulaceae. It is a branchless climber with white short flowers available throughout India. It was cooked with garlic and consumed as a green leafy vegetable to increase haemoglobin level.

Thella ganjeru (*Trianthema decandra* L.) is an annual succulent plant available throughout India as a weed. The plant has fleshy, opposite and smooth margined leaves (Jaswanth et al., 2002). It was used to treat back pains, leg swelling problems and kidney problems.

Erra ganjeru (*Trianthema portulacastrum* L.) is an annual or perennial herb that belongs to Aizoaceae family. It was less consumed compared to Thella ganjeru kura. It was also consumed to treat kidney, back pain and leg swelling problem.

Palleru (*Tribulus terrestris* L.) since ancient times it was used in the traditional medicinal system of India and China to treat many diseases (Chhatre et al., 2014). It was used to treat kidney problems, as high energy food and seeds powder used to treat some allergies in children

Thella budda goshi (*Physalis minima*) was also called native gooseberry and wild cape gooseberry. It was a perineal herb that belongs to Solanaceae family (Hassan et al., 2009). It was used as a leafy vegetable, used to treat mouth ulcers and body coolant substance.

Sirri kura (*Amaranthus polygonoides*) was used as a leafy vegetable and also to treat constipation problems.

Bankanti kura (*Corchorus olitorius*) is commonly called a Tossa jute or Nalta jute in English and was widely cultivated in Bangladesh for its fibre and its edible aerial parts (Choudhary et al., 2013). This plant was consumed by most people due to its taste and also increase haemoglobin level in the body.

Guntagaragadaaku (*Eclipta prostrata* Linn.) belongs to Asteraceae family. It was used to treat injuries, inflammations, jaundice and for blackening of hair.

Gunumalaaku (*Mirabilis jalapa*) belongs to Nyctagenaceae family. It was consumed with pulses as a leafy vegetable to increase haemoglobin level in the body.

Pindi kura (*Aerva lanata*) is a prostrate plant with many branches, simple alternate leaves with white cottony hairs beneath, greenish white flowers and black coloured seeds (Zhao et al., 2015). The plant was used to treat back pain and white discharge problems in women, kidney stone and other kidney problems. Leaf extracts of the plant were consumed by the people early in the morning to treat kidney stones.

4. Conclusion

Nalgonda district people of Telangana state are still utilising uncultivated green leafy vegetables as food and medicine in traditional medicinal system to cure many health problems. Undomesticated, wild and neglected crops domestication and exploitation of their natural traits with efficient utilisation of natural resources provide promising future food security. Inclusion of wild plants in National food policy should be done for formal cultivation, promotion and social welfare.

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