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Cultural cognizance and Traditional Knowledge of '*Naikpod*' tribe residing in and around Pranahita Wildlife Sanctuary, Mancheriyal district , Telangana, India

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Abstract

This paper documents the traditional knowledge of medicinal plants that are in use in Nayakpod tribal people residing in and around the Pranahita Wildlife Sanctuary, Mancheryial district, Telangana, India. Ethnomedicinal uses of plant species along with botanical name, vernacular name, family and mode of administration are presented. Most remedies were taken orally, accounting medicinal use. Most of the remedies were reported to have been from trees and climber species. The most widely sought after plant parts in the preparation of remedies in the study area are the leaves and root. High number of medicinal plant species available for the treatment of skin diseases and indigestion. The study emphasizes the potentials of the ethnobotanical research and the need for the documentation of traditional knowledge pertaining to the medicinal plant utilization for the greater benefit of mankind.

Key words: Naikpods, Ethnobotany, Traditional Knowledge, Pranahita wildlife sanctuary

Introduction

The Naikpods are mainly concentrated in the tribal areas of undivided Adilabad, Warangal, Karimnagar and parts of Khammam districts of Telangana, India. They usually live in separate hamlets. They usually speak Telugu. They are predominantly an agricultural tribe. They grow millets like jowar, ragi and rice, pulses like red gram and horse gram and tobacco, chillies and ground nut. Landless Naikpods work as agricultural labour to earn their livelihood. They supplement their income by the sale of minor forest produce or Nont Timber Forest Produce (NTFPs) collected from forests (Prasad, O.S.V.D 1995). The staple food of Naikpods is jowar and ragi. Various edible tubers, roots, fruits and leaves available in the neighboring forests and vegetables grown in their back yards add taste to their staple food. They are non vegetarians and fond of fish. They consume liquor. Naikpods do not eat beef (Hemadri, K. 1990). Family is the smallest and basic institution among the Naikpod tribe. Most of the families are nuclear as a man sets up his family of procreation a few years after marriage.

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The Naikpod family is patriarchal, patrilineal and patrilocal and hence the eldest male member of the family is the head of the family and central figure with whom the authority is vested. Both husband and wife share the responsibility of the maintenance of family (Hemadri, K. & S.S. Rao 1989). Men are engaged in difficult operations in agriculture, forest labor, agricultural labour and hunting and lighter jobs in agriculture, cooking maintenance of the house, up-bringing of children are the duties of women. In this article traditional knowledge and their cultural cognizance of Naikpods residing in around the Pranahita Wildlife Sanctuary, Mancheryial district of Telangana are presented.

Study area

The Pranahita wildlife sanctuary is one of the oldest protected areas of the Telangana state, being established in 1980. The sanctuary is the abode for diverse flora and fauna, spread in an area of 136 sq km and lies between 18^0 4' – 19^0 9' N latitudes and 79^0 9' – 79^0 57' E longitudes. It is situated in erstwhile Adilabad (present Mancherial district), Telangana state. The Pranahita river, a tributary of river Godavari forms the eastern boundary while Godavari river constitutes part of southern boundary with adjoining Maharashtra state (Figure 1.) . The sanctuary was setup primarily to conserve the blackbuck (*Antelope cervicarpa*) population, an endangered species (Schedule-I of Indian Wildlife Protection Act). The sanctuary is the catchment for Godavari and Pranahita rivers, a suitable habitat with widespread grasslands interspersed by scrub jungles, and harbours rare and endangered animals like four-horned antelope, chinkara and leopard. Tadoba-Andhari Tiger Reserve and Gadchiroli Reserve Forest are the neighboring protected areas but situated in Maharashtra state. As *Bharithalashuchus patani* (an animal fossil) was found in the river Pranahita basin (Ezcurra et al.2021), study area is known for the occurence of both the plants and animal fossils of paleozoic era. The climate of this area is characterized by a hot summer and is generally dry except during the South-west monsoon season. The year may be divided into four seasons. The cold season from December to February is followed by summer season from March to May. The period from June to September constitutes the South – west monsoon season, while October and November form the post monsoon season.The predominant ethnic tribes in and fringes of the sanctuary are Koyas, Naikpods, Gonds, Netha-kani and Mannewar (Hemadri, K., Sarma, C.R. & Sasibun, R.S. 1987). These tribes live in wooded hills and also in plains. The social customs, ceremonies at birth, marriage and death confirm largely to the rituals of Hindu community. They primarily depend upon the forests for their lively-hood by collecting non woody forests produce. They can knit bamboo mats, baskets, toys etc., and earn livelihood by selling them in local shandies. They are still continuing shifting cultivation which leads to deforestation but whatever the produce in their agricultural lands is just sufficient for their substance. According to 2001 census population of these tribal people is very less i.e., 3,186 only. They occupied only 9% of the total human population in the sanctuary area. This area received very scanty attention from the Ethno botanical and Traditional Knowledge point of view. Even some reports are available covering partial parts of the sanctuary on this aspect (Haimendorfe C.V.F. 1979, Hemadri, K. & S.S. Rao 1989, Hemadri, K. 1992, Hemadri, K. 1994, Ravishankar, T. 1990, Ravishankar, T & Henry, A.N. 1992. Raju, V.S., Sangameswar, M. 2002)

Methodology

Data on ethno veterinary medicine by the local tribes collected through frequent interviews with Nayakpod tribal people. The plants used in such practices were collected and identified preserved at Satavahana university herbarium. Data on ethnomedicinal plants arranged in alphabetic order of scientific names of the plants, author citation, name of the family, vernacular names in telugu and practices are arranged in a sequence. Several field trips were conducted to collect the traditional knowledge of the Naikpod tribal people (Naqvi 2001). The data were collected through questionnaires, discussions among the tribal people in their local language. The information on useful plant species, parts

used, local names and mode of utilization was collected (Jain, S.K. 1987.). The data collected further verified and cross-checked in different villages with different tribal people. Plants used in their daily needs were also collected. Plants used in their daily uses were identified. withe help of floras (Gamble, J.S. & C.E.C. Fischer. 1915 –1935). The plant specimens were presssed and deposited in the Herbarium of Department of Botany, Satavahana University, Karimnagar. The sorted informaiton on ethnobotanical knowledge of tribal inhabitants of Naikpod tribe are enumerated alphabetically by botanical names of plants, family names, vernacular names in Telugu language, habit, parts used and their uses that includes medicinal or any (Table 1).

Results and Discussion

Many plant species are used by tribal in their day to day life. Plants may paly vital and inevitable role in their cultural, medicinal, food habits etc (Table 1). Tribal use many plant species in their day to day life as in celebrating festivals, food habits, in preparation of medicines, in organizing festivities, in making of arms (Figure 2 & 3) and vehicles etc. Tribal inhabiting in this sanctuary largely use the products of *Mahua* tree as well the tree in their major festivals. Nayakpod generally depend on bamboo to make the baskets of all sizes to store granery, fishes and other food products (Figure 3). Even fish traps are made by bamboo. Apart from cultural uses, every plant part i.e., bark, stem, root, fruit, nuts, gums and resins are used in preparation of medicines and other uses in Naikpod tribe. The boiled tuber of *Pueraria tuberosa* (Nela Gummadi) is taken as aphrodisiac. The stem bark of *Acacia farnesiana* (Muriki thumma) and *Ailanthus excelsa* (Pedda maanu) are used in diarrhoea in children. The leaf juice of *Gossipium herbaceum* (Chettu doodi) is used to indicate whether a person is sick or not by poring it on their palm and waiting for colour change. This is activity is used to infer that the patient has internal problem. The wood of *Gmelina arborea* is used for making artificial legs. The root paste of *Plumbago zeylanica* (Chitramoolam) is applied in leprosy and other skin ailments. The root of *Abutilon indicum* (Thutturu benda) grinded with water and administered once a day in empty stomach for three days in leucorrhoea. Most of the medicinal plants are used singly. They made their traditional home of Naikpod made by bamboo and mud. They installed the traditional god under a *Mahua* tree. Home garden is maintained for daily use vegetable in Naikpod house. Naikpod woman preparing a rope with local available grass.Traditional knolwedge of Naikpods of present study area is quite unique when compare with the Ethno medicinal observations from Maha-Mutharam and Yamanpally tribal villages of neighboring Jayashankar Bhupalpally district (Murthy et al. 2008).

In addition to traditional botanical knowledge and cultural cognizance are also studied in the study area. Naikpods are culturally rich tribe while they seed spirits being all phenomena and some of them are regarded as presiding deities over the various spheres of life, each diety having its sphere of influence. Thus there are deities like Bhu Devi, Gangamma, Mutyalamma, Maisamma, Sammakka and Saralamma, Peddamma, Vana Devata etc. The deities are classified into benevolent and malevolent deities. The former are worshipped out of respect and the latter are propitiated out of fear. The supreme deity of naikpods is lakshmi devara. Pandavulu are also worhipped on all important social and religious occasions. Every Naikpod settlement usually has a hut to house the benevolent deities of Naikpods. The priest officiates at various social and religious ceremonies. They are very rigid in observing the ritual purity while performing the rituals (Prasad, O.S.V.D 1995). They celebrate a kula panduga for a month, during which most of the able bodied men of the village, abstain from economic pursuits and take the images of the deities round the neighbouring villages. They celebrate peddamma panduga also since it is believed that

peddamma on propitation will protect the Naikpods and their cattle from epidemics. The monogamy is more common than polygyny. The woman has equal rights with man in selection of spouse and divorce. Women are prohibited from taking part in the religious ceremonies and from touching the idols of the deities.

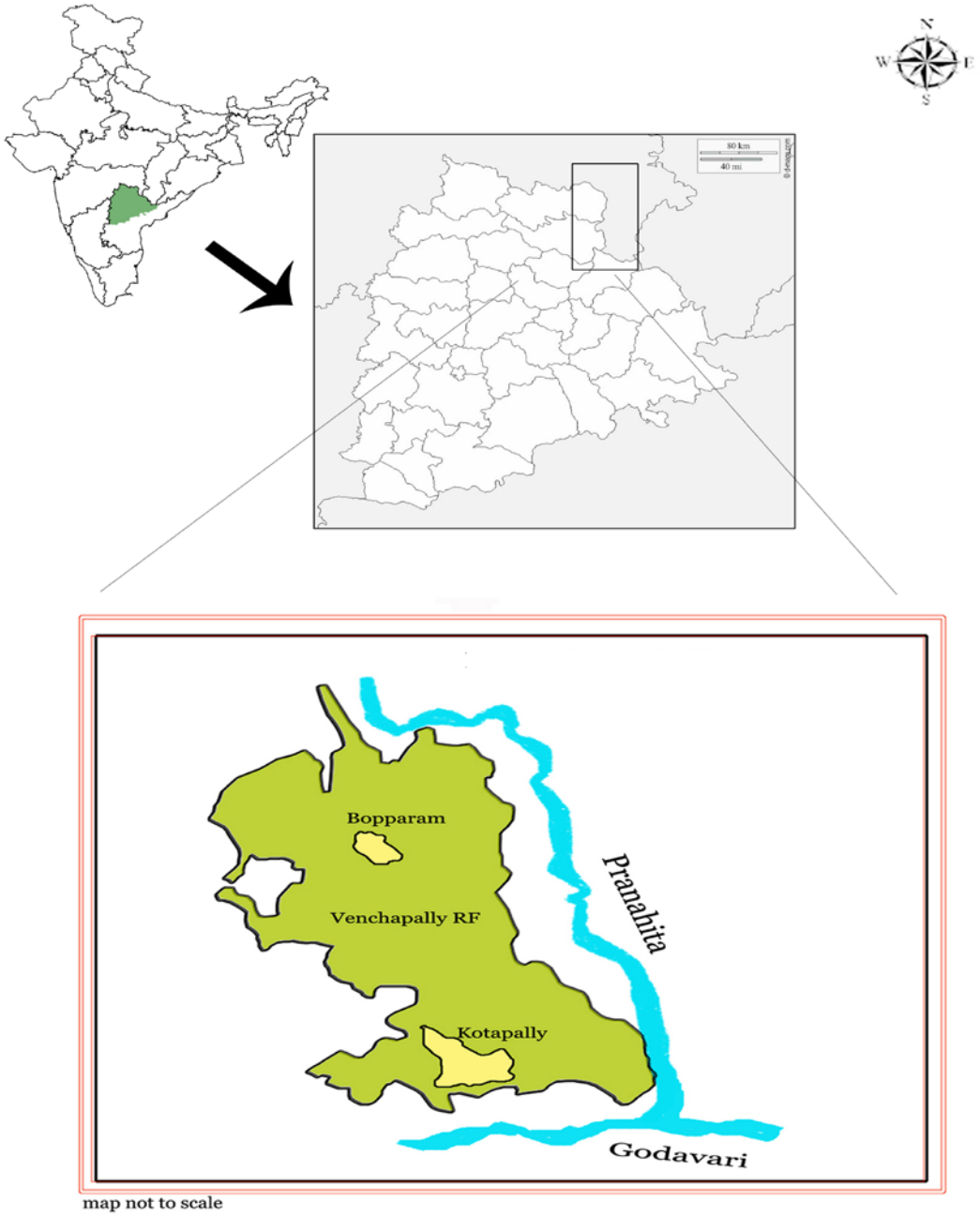

Fig. 1: Location map of Pranahita Wildlife Sanctuary, Telangana, India

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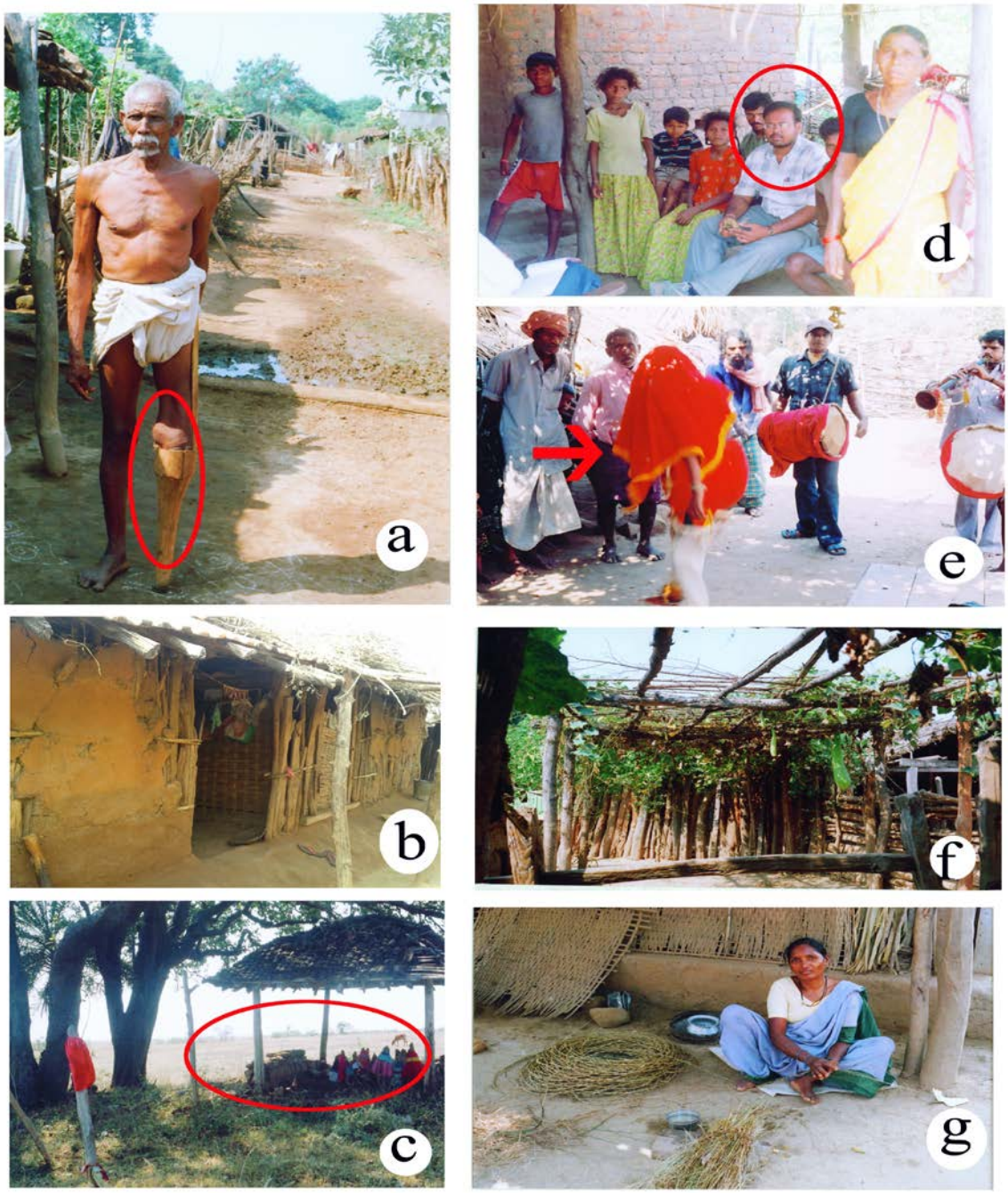

Fig. 2: Traditional knowledge of Naikpods; a.Naikpod head man uses his calypurse made by the wood of *Gmelina arborea* (Gummadi Teku); b. Traditional home of Naikpod made by bamboo and mud; c. Traditional god under a*Mahua* tree; d. Author interaction with tribal people; e.Traditional dance of Naikpod tribe during festivities; f. Home garden with vegetable in Naikpod house; g. Naikpod woman preparing a rope with local available grass.

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Fig. 3: Storage items used by Naikpods; a.& b.; water storage utenstils made by bottle guard; c. *Teega Dhaari Bhutta*to store the things; d. Hen-baskets made by bamboo; e. Fish trapper made by bamboo; f. & g. granery containers made by bamboo; h. fish basket

Table 1: Ethnobotanical knowledge of Nayakpods in Pranahita wildlife sanctuary, Telangana, India

Sl.No.	Botanical name	Family name	Local name	Habit	Parts used	Uses
1	*Abutilon indicum* (L.)Sweet	Malvaceae	Tuthuru benda	Shrub	Root	Root crushed with water and administered once a day in empty stomach for three days in Leucorrhea
2	*Acacia farnesiana* (L.)Willd	Mimosaceae	Muriki thumma	Tree	Bark	Peeled bark is bind to waist to control Diarrhoea
3	*Achyranthes aspera*L.	Amaranthaceae	Utha reni	Herb	Root	Root paste is applied on Scorpion bite
4	*Aegle marmelos* (L.) Correa	Rutaceae	Maredu	Tree	Bark	Bark powder is administered with water in Dysentery
5	*Aillanthus excelsa* Roxb.	Simaroubaceae	Peddamanu	Tree	Bark	Bark decoction is administered to control Diarroahea
6	*Andrographis paniculata (*Burm.f.)Wall.ex Nees	Acanthaceae	Nela vemu	Herb	Leaves	Leaf powder is swallowed in the form of tablets in fever
7	*Aristolochia bracteata*Lam.	Aristolochiaceae	Gadidha gadapa	Herb	Whole plant	Whole plant is grinded with water and administered to cure Dysmenorrhea
8	*Aristolochia indica* L.	Aristolochiaceae	Galeru	Herb	Root	Root is crushed with water and taken in stomachache and fevers
9	*Asparagus racemosus*Willd.	Lilliaceae	Pilli peechera	Shrub	Tubers	Tubers are boiled and taken as aphrodisiac
10	*Balanites roxburghii* Planch	Balanitaceae	Gara chettu	Tree	Bark	Bark is pickled with water, administered to hens in Leucorrhea
11	*Borreria hispida(*L.) Shum.	Rubiaceae	Alamu	Herb	Whole plant	Whole plant is grinded & mixed with sugar and administered twice a day in Jaundice
12	*Buchanania lanzan* Sprengel	Anacardiaceae	Sara pappu	Tree	Gum	Gum is swallowed in the form of tablets in chest pain
13	*Cassia auriculata* L.	Caesalpiniaceae	Tangedu	Shrub	Bark	Bark is crushed with goat milk and administered to cattle in gas trouble and indigestion
14	*Cassia sophera* L.	Caesalpiniaceae	Adavi chennangi	Shrub	Leaves	Leaf juice is applied in pains in Cattle
15	*Caussine glauca* (Rottb.) O. Kuntze.	Celastraceae	Gangregi	Tree	Bark	Bark grinded with water and used in Rheumatism
16	*Cissus quadrangula*	Vitaceae	Nalleru	Climber	Stem	Stem paste is applied in bone fractures
17	*Coccinia grandis* (L.)Voigt Hort.	Cucurbitaceae	Kakaidonda	Climber	Fuits	Fruits are taken in muscular pains & in reducing "Vata"

18	*Cocculus hirsutus* (L.)Diels	Menispermaceae	Doosari teega	Climber	Leaves	Leaf extraction with water is used in excesses of heat
19	*Coldenia procumbens*L.	Asteraceae	Chipatattaaku	Herb	Leaves	Leaf paste is applied on cuts and wounds
20	*Combretum decandrum* Roxb.	Combretaceae	Rompiteega	Climber	Bark	Bark extraction is used in cattle in pains
21	*Diospyros chloroxylon* Roxb.	Ebenaceae	Illinta	Tree	Bark	Bark powder is applied on wound and ulcers
22	*Enicostema axillare* (Poir. ex Lam.) A. Raynal	Gentianaceae	Nelagurugudu	Herb	Whole plant	Whole plant grined and paste is applied on snake bite
23	*Erythroxylum monogynum* Roxb.	Erythroxylaceae	Deva daru	Tree	Leaves	Leaf paste is applied in bone fractures
24	*Gardenia latifolia* Aiton.	Rubiaceae	Pedda karinga	Tree	Stem bark	Bark Juice is applied in Rheumatism
25	*Gmelina arborea* Roxb.	Verbenaceae	Gummadi teku	Tree	Bark	Bark powder is useful in Leucorrhea
26	*Gossypium herbaceum* L.	Malvaceae	Pathi	Herb	Leaves	Leaf juice is poured on palm, waiting for color changes as it acts as indicating agent in deciding patient's internal problem
27	*Gyrocarps jacquini* Gaertn.	Hernandiaceae	Poniki	Tree	Stem bark	Bark extraction is administered in Leucorrhoea
28	*Holarrhena antidyssenterica* Wallich ex A.DC.	Apocynaceae	Tedlapala	Tree	Bark	Bark is cruched with water and administered to cattle in indigestion, bark powder is applied on wounds of cattle
29	*Lannea coromandelica* (Houtt.)Merr.	Anacardiaceae	Dumpidi	Tree	Bark	Bark crushed and applied on wounds
30	*Litsea glutinosa* (Lour.)C.Robinson	Lauraceae	Nara mamidi	Tree	Bark	Bark is crushed with goat milk and bandaged on broken limbs of cattle and human as well.
31	*Madhuca indica* Gmel.	Sapotaceae	Ippa puvvu	Tree	seeds	Flowers are shade dried, they are distilled for "Sara" a beverage, dried flowers are also edilbe, seed oil is used in cooking
32	*Moringa concanensis* Nimmo ex Gibs	Moringaceae	Karu munaga	Tree	Bark	Bark is crushed with half liter water and given to cattle in pains
33	*Moringa pterygosperma* Gaertn.	Moringaceae	Munaga	Tree	Leaves	Leaves are boiled with pulses and taken in Anaemia and Jaundice
34	*Phyllanthus amarus* Schum.	Euphorbiaceae	Nela usiri	Tree	Whole plant	Whole plant is grinded & mixed with sugar and administered twice a day in Jaundice
35	*Plumbago rosea* L.	Plumbaginaceae	Erra Chitramoolam	Herb	Root	Root paste is applied on piles to remove

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36	*Plumbago zeylanica* L.	Plumbaginaceae	Chitramoolamu	Herb	Root	Root paste is applied in Leprosy and Muscle pains
37	*Premna tomentosa* Willd.	Verbenaceae	Naguru	Tree	Stem bark	Crushed bark is applied in Rheumatism
38	*Pureria tuberosa* (Willd.)DC.	Papilionaceae	Nela gummadi	Climber	Tubers	Boiled tubers are taken as Aphrodisiac
39	*Sapindus emarginatus* Vahl.	Sapindaceae	Kunkudu	Tree	Fruits	Juice of fruits of one litre is administered to cattle in gas trouble & indigestion
40	*Semecarpus anacardium* L.f.	Anacardiaceae	Jeedi pandu	Tree	Fruits	Mesocarp of the fruit is edible, Resin taken from nut is applied in muscle pain, nervy pains and used as antiseptic
41	*Sterculia urens* Roxb.	Sterculiaceae	Tapasi	Tree	Gum	Gum is swallowed in the form of tablets in Nervousness
42	*Syzigium cumini* L.	Myrtaceae	Neredu	Tree	Bark	Bark powder is taken with water in urinary problems
43	*Terminalia bellirica* (Gaertn.)Roxb.	Combretaceae	Taani	Tree	Fruits	Fruit juice is used in cough
44	*Tragia involucrata* L.	Euphorbiaceae	Durda gondia	Herb	Root	Root pastes is applied on Scorpion bite
45	*Urena lobata* L.	Malvaceae	Nalla benda	Herb	Root	Root paste is applied in skin diseases
46	*Vitex negundo* L.	Verbenaceae	Vaavilaku	Tree	Leaves	Leaf extraction is used in headache and administered orally in fevers
47	*Xylia xylocarpa* (Roxb.)Taub.	Mimosaceae	Bojja	Tree	Bark	Juice of crushed bark is applied in skin diseases

Conclusion

In a developing country like India, where major portion of its population is residing in rural and tribal areas and which have their own culture specific medical heritage, the health policy makers and health care planners are not left the tribal areas and the rural areas for many health care programs even met with stiff resistance. While local people usually welcome the provision of hospitals and public health programs, the shift to using biomedicine often means that healing traditions are eroded and traditional knowledge lost in the process. This paves great flaw to their native medicine system. Before the existence of ethno-medicine from the tribal community, it is necessary to document and understand this culture-specific medical heritage.

The tribal people in their day to day life use many plant species. Due to constant association with the forest environment, they have evolved knowledge by trial and error method and have developed their own way of diagnosis and treatment for different ailments (Murthy et al.2010). The ethnic drug formulations need further clinical tests to prove their efficacy and also to develop basic source for further studies aimed at conservation, cultivation and improvement of traditional medicine and economic welfare of rural and tribal population of this region (Murthy, 2007, Murthy et al. 2018; Murthy et al 2010; Murthy 2012). A further survey and research will be suggested for the in-detail exploration of traditional knowledge of the Naikpod tribe.

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