



### Short Communication

## A survey and study on ethno medicinal plant's used by tribal people in Pathalgaon Block of Jashpur district, CG, India

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### Abstract

The study was conducted to record the traditional uses and the utilization pattern of ethno-medicinal plants in pathalgaon block of Jashpur district. Jashpur district is located North-East side of Chhattisgarh and this side has rich diversity of medicinal plants. The Survey was conducted on Pathalgaon Block four villages where meeting with local medicine men Baiga, Vaidya and collect the data regarding to medicinal plants. Ethno- Medicinal plants have been observed to be very effectual in the ministration of various ailments. Ethno-medicinal plant species are report in which parts of plants are used in various diseases. The high number of plant parts have been collected which are used by the tribal's and the villagers for treatment of various ailments. The present paper deals with 21 plant species are belonging to 17 families were reported in which Tree and Shrub having same percentage Trees (38%), Shrub (38%), Herb (14%), and Climber (10%). which are used by them ethno medicinally, collected plants are very important in this area. These plants are used in various ailments like: Sugar, Blood Pressure, Malaria, Piles, Asthma, Skin disease, Jaundice.

**Keywords:** Medicinal Plants, Disease, Ethno medicine, Tribal's, Ailments.

### Introduction

Traditional medicine and ethno botanical knowledge plays a very influential role in Alternative medicinal Plants area associated with various properties related to health and wellness. Traditional medicine in a great contributor to its health care's that is pointed out by world health organization (WHO). In India 65% of rural people are depended on medicinal plants for treating different ailments<sup>1</sup>. The Oraon tribe has remarkable information of medicinal plants for their inherited and old tradition and system of treatment of diseases and ailments.

The tribal's always searching for and use locally available medicinal plants to treat their diseases and ailments<sup>2</sup>. The maximum acceptance of medicinal plant in rustic areas is due to high amount of allopathic medicine and side effects<sup>3</sup>. Chhattisgarh has the large numbers of plants were reported as medicine some plants are used singly and some are used collectively. Some plants are affect only in one disease where as some are use affective on multiple diseases. Forest resources are found in large quantities in Chhattisgarh, nearly area of the state is under forest cover. In Jashpur district, people of remote area live with ethos in total concinnity. Tribal people know the emphasis of plants and forest for their continuance, hence practicing sustainable use of plant assets. This study was conducted to list out the medicinal plants with their uses among the different villagers and tribal communities of Jashpur district of Chhattisgarh.

**Geographical location of the study area:** Jashpur district is located between 22°17' and 23°15'N latitude and 83°30' and 84° 24'E longitudes. 5838.00sq.km is total geographical area of jashpur district. The length is 150 km of north-south and breadth is 85km of east-west area of Jashpur district. Its total area is 6,205km. This area is divided geographically into two parts. Where total very dense forest are 111 and moderate Dense forests are 1,485 and the total open forest are 568 the total forest in Jashpur is 2164 where scrub is 11 and total Jashpur district geographical area percentage is 37.07%. Pathalgaon is located at 83°28' East Longitude and 22°34' North Latitude. Total area of Pathalgaon is 803km<sup>2</sup> including 771.60km<sup>2</sup> rural area and 31.83km<sup>2</sup> urban area. It has an average elevation of 546 meter. Pathalgaon Block is present in south-west site in Jashpur district.

**Review of literature:** Ethno botany openly means, all side of direct kinship of plants with human, Human has been using plants since time of his embossing on this planet. He receive the information becomes an integral part of his culture in India very old time mentions are there in Rig-Veda and Atharva Veda about the uses of plants.

Plant plays an influential part in human life. Physical security was also a very important part of the olden times people, but today it becomes an employment in the modern industrial world<sup>4</sup>. It is very necessary to have a suitable documentation of medicinal plants<sup>5</sup>.

The discovery, information and knowledge about traditional medicine and ethno botanical data are made in the old times play a very important role in scientific research<sup>6</sup>. Baigas and Vaidyas knowledge of traditional herbal provided the novel information for the area for the treatment of different diseases disorder and relief<sup>7</sup>. After all the tribes living in forest area often examine the positive effects of their preparations, they have confident in their own drug prescription<sup>8</sup>.

Various parts of plants are used in curing different disease<sup>9</sup>. The tribal community and their habitation constitute very important parts of our country environment and ecology<sup>10</sup>. The ethnic group of Jashpur uses a number of medicinal plants to treat a wide assemblage of ailments occurring in human beings<sup>11</sup>. Vaidyas are the Traditional doctors who have the knowledge of traditional medicine have crossed the age of 70-75 years<sup>12</sup>. The treatment given by tribals is found very effective<sup>13</sup>.

A large number of plant species have been collected which are used by the tribal's and the villagers for treatment of various ailments<sup>14</sup>. Medicinal plants were included for primary health care, as people generally feel safer than indigenous treatment, as well as the cost of these medicines is much lower in cost than modern drugs<sup>15</sup>.

District Jashpur possess mixed vegetation, concentration of dominance was found to be shared by more than on species. Modern health facilities are not available in remote areas where tribal groups live so they use traditional knowledge of plants present in the local area to serve their medicinal purpose<sup>16</sup>.

## Materials and methods

**Survey:** In this paper the ethno botanical fieldwork is attend in 3-4 villages of Palthgaon block of Jashpur district in Chhattisgarh where many tribal people are live together. The data on used were recorded in the field from some local villagers, especially elder persons, local medicine men, vaidyas and herbalist. Survey was done as per planned schedule of field visit. All the Information's were collected through asking questions and personal interview on the spot was the basic source of the knowledge in the present study.

**Collection of plants:** The plants were assembled flowering and fruiting condition in the field. If during collection plants have no flowers and fruits than twigs of plant with few leaves were collected for seemly identification and the collected plant materials were tagged properly with proper local and botanical name and herbarium were prepared. Photographs of plants species were taken for herbarium preparation.

**Identification of Plants:** The plants were identified with the existing literature and with the help of Dr. M.L. Nayak (Retired Professor of Botany from Pt. Ravi Sanker University Raipur), Villagers and Local Vadhyas.

## Results and discussion

A large number of various species of medicinal plants are found in different tribal area of Jashpur district. In all total number of 21 medicinal plants belonging to 17 families used by Oraon people medicine men as an antidote of various diseases. They fall under 8 trees, 8 shrubs, 3 herbs and 2 climbers. Perusal of data in Table-1 indicates that plants with correct botanical name and family, local name, habit, part used and name of disease are arranged alphabetically. On the basis of extensive collection of medicinal plants from some villages of Jashpur district. In this study, the traditional uses of plants against various diseases such as Skin disease, Piles, Asthma, Cancer, Dental Problem, Ear pain, Bone pain, Stomach, and Paralysis were considered.

**Skin disease:** Plant used and procedure of preparing the medicine first we take the root of "Aak" (*Calotropis procera*) and "Besharm" (*Ipomoea carnea*) root and mix it with sesame oil and asafoetida with copper sulphate. To apply this medicine first cleans that area where we apply this medicine with detergent and lime and apply it on affected skin, Or the second method is take leave of "Tulsi" (*Osmium sactum*) leaves, "Lengur" (*Vitex nengundo*) Leaves and some salt pulverise them and make pest or we can take the dry stem bark of "Tilai" (*Wendlandia tinctoria*) and make powder and make paste by using warm Niger seed oil and apply it like a cream. This medicine is used for Alchi (type of skin disease) use it 3-4 times in a day.

**Asthma:** Plant used and procedure of preparing the medicine we Pulverise the plant of "Bhringraj" (*Eclipta prostrate*), "Bhejribhata" (*Solenum xanthocarpum*) and sarfani with milk and take in empty stomach once in the morning.

**Piles:** Plant used and procedure of preparing the medicine take "Koriya" (*Holarrhena antidysentrica*) root latex and 21 black pepper mix with mustard oil and take it empty stomach in the morning. Consume it continuously for 3-4 days.

**Dental problem:** Plant used and procedure of preparing the medicine first we take the latex of "Aak" (*Calotropis procera*) is mixed with mustard oil and with the help of cotton it is applied in the tooth where there is a problem. This process is done continuously for 2-3 days in morning Or the second method where we take the dry seed of "Bhejribhata" (*Solenum xanthocarpum*) fruit in a spoon, mix some mustard oil and put these spoon in to fire and worm it when smoke increasing, take a pan and breath the smoke of it.

**Bone pain:** Plant used and procedure of preparing the medicine take the inner thing of fruit of "Paras pipal" (*Thespesia populnea*) and boiled with water and make decoction and drink it 3-4 days regularly.

**Stomach pain:** To prepare the medicine for this first we grind the root of "Paras pipal" (*Thespesia populnea*), mixed it with water and take it.

**Malaria:** Plant used and procedure of preparing the medicine for this Boil the tendril of “Gungi” (*Abrus precatorius*) and make decoction and drink it.

**Blood Pressure:** To produce this medicine make tea with the dry stem bark of “Chiraigodi” (*Alstonia venenata*) and drink it 3-4 days regularly.

**Sugar:** The procedure of preparing this medicine first we take the stem bark of “Beeja” (*Pterocarpus marsupium*), “Neem” (*Azadirachta indica*) boil it with 6 lt. water and boiled it till it’s remain 1 lt. and take it in empty stomach 1 week regularly.

**Jaundice:** To prepare this medicine make juice of “Sugarcane” (*Saccharum officinarum*) and drink it or take old leaves of “Rahad” (*Cajanus cajan*) mix with sugar and take this 4-5 days in morning empty stomach.

**Paralysis:** For the medicine of paralysis take leaves of Patand or Tatang and “Rakatfar” (*Ardisia, solanaceae*) leaves and make powder, mixed it with Cow ghee (butter), and take it by spoon in a morning empty stomach.

**Gland:** For this first we make warm pest of the root of “Satawar” (*Asparagous racemosus*) and climber of “Amarbel” (*Cuscuta reflexa*) and apply it on the gland.

**Table-1:** Details about ethno medicinal plants used by tribal people of Pathalgaon Block.

Botanical Name	Family	Local Name	Habit	Part Used	Name of Disease
<i>Abrus precatorius</i>	Fabaceae	Gungi	Tree	Leaves	Fever, cold, cough
<i>Achyranthes aspera</i>	Amaranthaceae	Ghotsant	Herb	Root	Abortion
<i>Alstonia venenata</i>	Apocynaceae	Chiraigodi	Tree	Bark, root, fruit	Blood pressure, fever, skin
<i>Ardisia, solanaceae</i>	Primulaceae	Rakatfar	Shrub	Leaves, root	Paralysis, stomach disorder
<i>Asparagous racemosus</i>	Liliaceae	Satawar	Climber	Tuber	Joint pain, gland, wound
<i>Azadirachta indica</i>	Meliaceae	Neem	Tree	Whole plant	Sugar, blood label,
<i>Calotropis procera</i>	Apocynaceae	Aak	Shrub	Root, stem latex	Dental Skin disease
<i>Cuscuta reflexa</i>	Convolvulaceae	Amarbel	Climber	Climber	Gland disease
<i>Eclipta prostrate</i>	Asteraceae	Bhringraj	Shrub	Whole plant	Asthma, fever, cut, wounds, skin disorder
<i>Hedychium coronarium</i>	Zingiberaceae	Gulbakawali	Shrub	Flower	Head pain
<i>Holarrhena antidysentrica</i>	Apocynaceae	Koriya	Tree	Bark, root, seed	Piles, skin disease
<i>Ipomoea carnea</i>	Convolvulaceae	Besharam	Shrub	Root latex	Skin disease
<i>Lepidagathis fischeri</i>	Acanthaceae	Bhlukakai	Herb	Whole plant	Wound, burn, fever, skin
<i>Martynia diandra</i>	Martyniaceae	Bagnakhi	Shrub	Fruit	Skin disease, inflammation
<i>Nyctanthes arbour-tristis</i>	Oleaceae	Harsingar	Tree	Leaf, seed	Malaria, cough, piles, skin etc
<i>Pterocarpus marsupium</i>	Fabaceae	Beeja	Tree	Bark	Diabetes
<i>Saccharum officinarum</i>	Poaceae	Kosiyar, Ganna	Herb	Stem	Diabetes, Jaundice
<i>Solenum xanthocarpum</i>	Solanaceae	Bhejribhata, Bhatkataiya	Shrub	Whole plant	Dental, asthma, stomach, respiratory disorder
<i>Thespesia populnea</i>	Malvaceae	Paras Pipal	Tree	Fruit, leaves, bark	Ringworm, skin disease, stomach pain
<i>Vitex negundo</i>	Lamiaceae	Lengur	Shrub	Leaves	Skin disease
<i>Wendlandia tinctoria</i>	Rubiaceae	Tilai	Tree	Bark, leave	Skin disease



**Figure-1:** *Vitex negundo*.



**Figure-4:** *Pterocarpus marsupium*.



**Figure-2** *Thespesia populnea* (Fruit and Leaf).



**Figure-5:** *Wendlandia tinctoria*.



**Figure-3:** *Holarrhena antidysentrica*.



**Figure-6:** *Alstonia venenata*.





**Figure-7:** *Martynia diandra*.



**Figure-10:** *Asparagus racemosus* (whole plant and Root).



**Figure-8:** *Eclipta prostrata*.



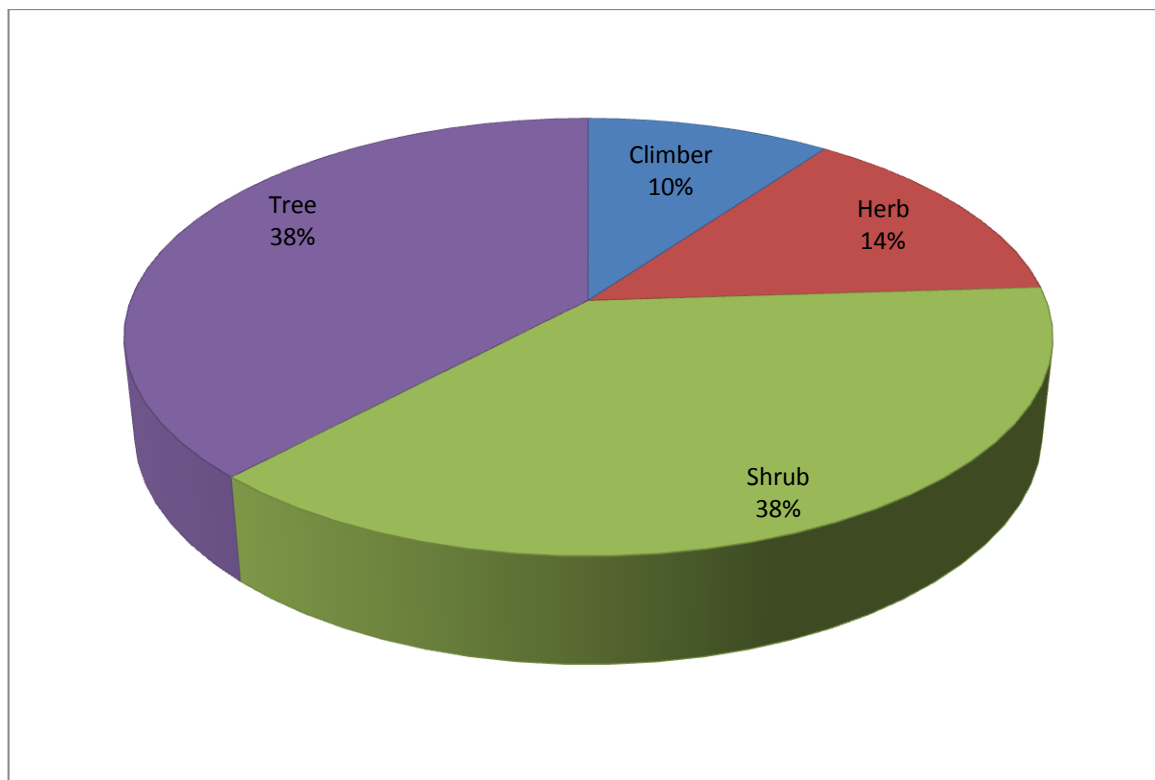
**Figure-11:** *Abrus precatorius*.



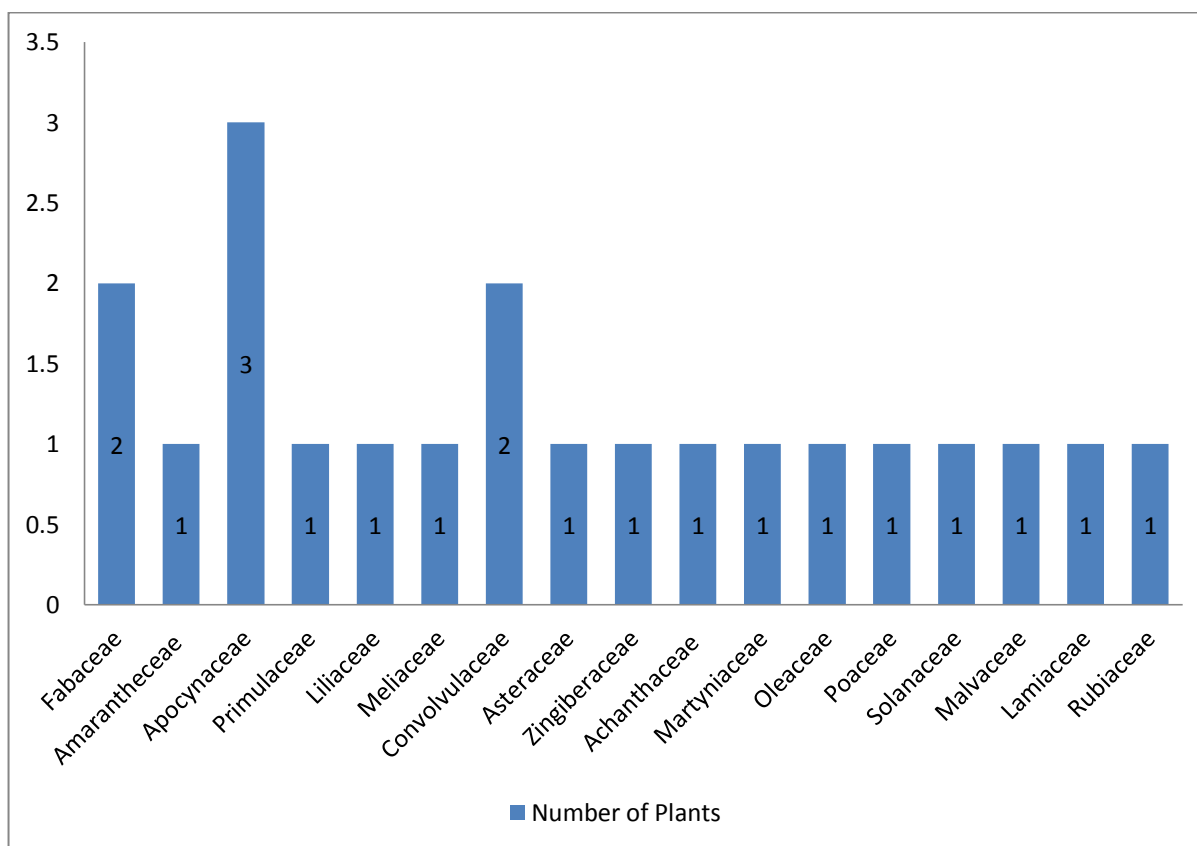
**Figure-9:** *Calotropis procera*.



**Figure-12:** *Nyctanthes arbour-tristis*.



**Figure-13:** Percentage of different plants habit collected from Pathalgaon Block.



**Figure-14:** Family wise distributions of plants.

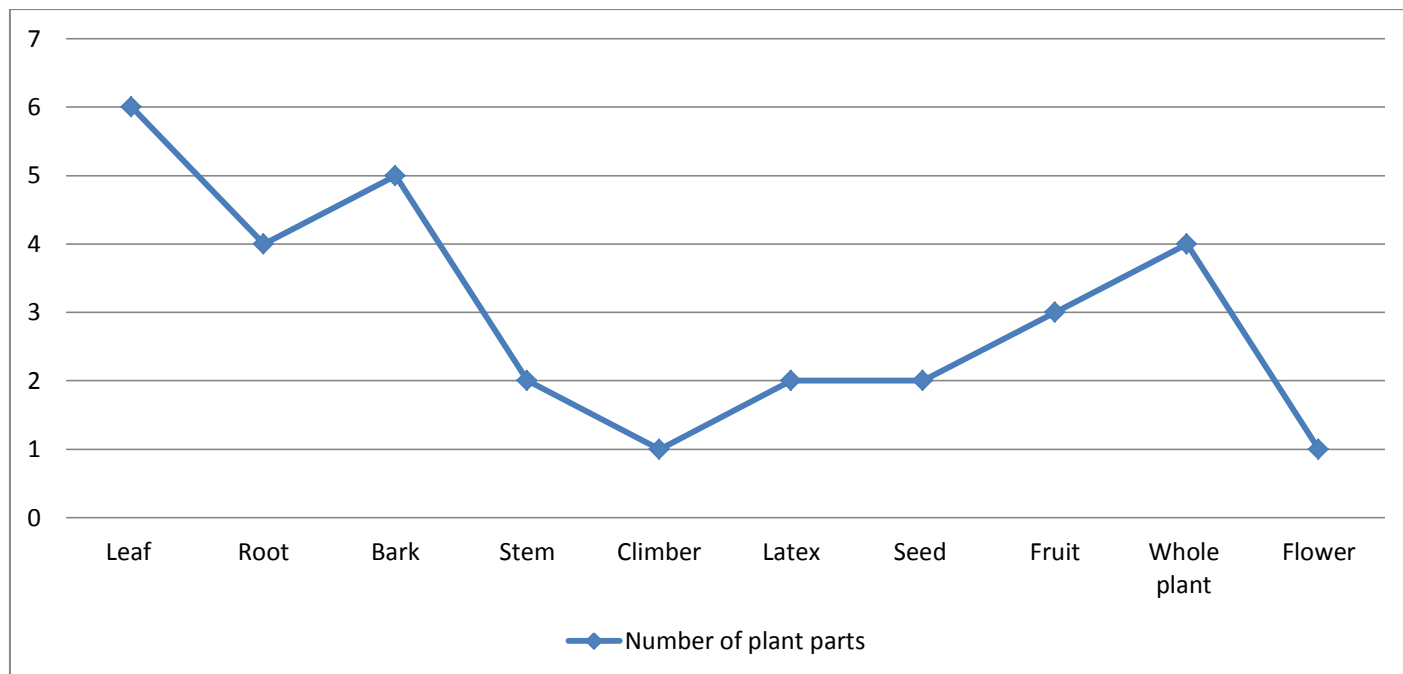


Figure-15: Plant part used for medicine.

### Conclusion

A large number of tribal people live in remote rural area and unreachable area of the forests. Ethno medicinal plants are used in healing various diseases. Mostly The medicinal plants were used to cure skin diseases, diabetes, asthma, fever, Oral diseases, Fracture, Jaundice etc. All plant species are generally present in the area but most of the people are not having knowledge or perception about their importance. From the above discussion, it is evident that a huge majority of plant parts are used for various medical ailments that tribal people of Pathalgaon Block have made good use of the knowledge which their forerunner have taught them. These herbal preparations are widely being used due to their easy intelligibility and availability, low cost of medicine preparation and use also. These types of medications are cost effective and no any side effects. The new generation, can be enlightened with these age old methods of herbal medicine preparation, so that this precious knowledge is not lost with time and it can be helps to researchers for future study research and much more methods of herbal drug preparation for treating various diseases.

**Appendix:** Performa for collecting field data on medicinal plants:

<b>1. Tribes:</b>	Name:	Gender:
	Age:	Experience:
	Locality:	Occupation:
	Information obtained from:	Information transferred to:
<b>2. Diseases name:</b>		
<b>3. Number of diseases cured:</b>		
<b>4. Detail of the plant:</b> Scientific name:		
Local name: Family:		Habitat:

In case of Tree Species: Flower color:
Fruit Character:
Small: Latex Present:
Collection and identified: photograph:
Availability:
<b>5. Description of the drug:</b>
Time/ Season of collection:
Method of preparation of the drug:
(i) Nature form (ii) Crushed (iii) Juice
(iv) Decoction (v) Poultice (vi) Soft paste
(vii) Solid preparation (viii) Powder
(a) Interior uses (chewing, Ingestion, Inhalation, Ticking)
(b) exterior uses (Lotion, Bath, Ointment, Poultice)
(c) Ingredient used: single/mixed
(d) Mode of administration:
(e) Consecration of the drug: Y/N (Duration.....)
(f) Part of the plants used as Medicine:
(i) Stem (ii) Root (iii) Leaf
(iv) Seed
(v) Flower (vi) Fruit (vii) Root bark
(viii) Stem bark
(ix) Latex (x) Gum.
(g) The Quantity of the plant part used for devising of drug for 100 gm.
<b>6. Curative Indication:</b> (a) Dosage: Day/Month/Year
(b) Person: child/Adult/Old
(c) Diet restriction: Y/N
(d) Patient treatment with in the Tribal/other than Tribal
(e) Side effect: Y/N/Unknown
<b>7. Reason of the plant for considering as medicine:</b>
(a) Magic –religious belief
(b) Traditionally

- (c) Personal practices of Healers
- (d) Strong faith on herbal medicine
- (e) Accept
- (f) Aphorism
- (g) Conducted person no. :
- (h) Healed person no. :
- (i) Other information:

Consent of those giving information for study.

I..... (name of informant) the information given by me in this paper is true and fully useful..

Date..... Signature/thumb impression of informant).

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