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# Use of indigenous medicinal plants by tribal women for treatment of cough, cold & asthma disorder

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**Abstract**
Nanded district of Maharashtra state has the major forest area in the district is in Kinwat taluka (i.e.) about 57,800 hectares. This taluka is also a part of area popularly known as Gondwan. Approximately more than three out of every ten persons in taluka are tribals (32 per cent). Among tribals, Rajgond (47 per cent), Andh (36 per cent), Pardhan (9 per cent) and Bhil (5 per cent) are the main tribals. The tribal area is spread over 1146 square kilometers (Census, 1991). Most of the tribal women working in the farming activities and they take care of health of all family members. They are most of the time used medicinal plants and parts to cure health problems. From kinwat taluka six villages were selected and twenty villagers from each village were randomly selected for the study. Thus, from each village 20 respondents making the total sample size 120 were selected. For this study statistical tools were used as frequency, percentage, correlatioal analysis, multiple regressions. To collect data regarding use of indigenous medicinal plants for cough, cold & asthma disorder by them interview schedule was prepared with help of information regarding diseases name, plant name, medicinal plants used in the form of seed, root stem, bark, leaves, flowers, rhizome, bulb. Plants are one of the most important sources of medicine. The application of plants as medicines dates back to prehistoric period.

**Keywords:** cough, cold & asthma disorder, medicinal plants, sources of medicine etc.

## Introduction
The new branch of science, medico-ethano botany acts as a bridge between traditional knowledge of tribal people and botany regarding medicinal aspects of the global population relies on traditional medicine and a large part of the therapies consists of plant extracts of their active constituents. India is very rich in medicinal plants and it's continued to be an important therapeutic aid for alleviating ailments of human kind.

Ganga plains covering an area of about 3.75 lakhs km 2 in the states of Uttar Pradesh, Bihar and Bengal was formed by the deposition of sediments brought by the river Ganga and its tributaries in the quatemary period of Cenozoic area. This alluvial zone is the most fertile part of the country. Since ancient days the Ganga plains has been rich in floral diversity. The variety of medicinal plants growing in wild state due to favourable climatic and edaphic conditions in this region includes the Punarnava (*Boerhaavia diffusa*), Gokhru (*Tribulus terrestris*) Ark(*Calotropis procera*), Dhatura (*Datura alba*), Sarpagandha (*Rauwolfiaserpentinal*), Satawari (*Asparagus racemosus*), Kalmegh (*Andrographispaniculata*), Mandukparni (*Centella asiatica*), Buch (*Acorus calamus*), Sankhpushpi (*Evolvulus alsinoides*) and many more. (Singh, 2007) [4].

## The need of research and development of medicinal plants
In India, women constitute 496 million (48.3 per cent) of total population (1028 million) and it is reported that a majority of economically active women (78 per cent) are engaged in agriculture compared to 63 per cent men. According to 2001 census 32.9 per cent of them are cultivators and 38.9 per cent are agricultural labourers, Kerala, the land of spices, where women population is more, have a share of 4.8 and 21.5 per cent, respectively.

The Kinwat region of Nanded district is a rich source of medicinal plants. The region is not only outwardly beautiful, but also encompasses numerous species of medicinal plants having great importance. The trees viz. Harda (Terminalia chebula), Behda (Terminalia bellerica), Awala (Emblica officinalis), Jamun (Zizygum cumini), Satwin (Alstonia scholaris), the herbs and shrubs viz. Adulsa (Adhatoda vasica), Pangara (Erythrina indica), Nirgudi (Vitex negundo) and Tulas (Ocimum tenuiflorum) are commonly observed everywhere in the region. However, these valuable plants have remained neglected by the common rural people and a handful of knowledgeable people have exploited these species for their own benefits. At present, due to increasing industrialization, mining, the charcoal making etc. the tree species having medicinal value are disappearing at faster rate. To know use of indigenous medicinal plants for cough, cold & asthma disorder by them interview schedule was prepared with help of information regarding diseases name, plant name, medicinal plants used in the form of seed, root stem, bark, leaves, flowers, rhizome, bulb.

## Materials & methodology
Ex-post-facto research design was used for the present study as it is worthy to apply when the independent variables have already acted upon. Twenty tribal women from each village were randomly selected for the study. Thus, from each village 20 respondents making the total sample size 120 were selected.

## Use of medicinal plants by tribal women

### 1. Use of medicinal plants by tribal women

**Table 1:** Distribution of the tribal women according to their extent of use of medicinal plants N=120

| Sr. No. | Use of medicinal plants | Number | Per cent |
|---|---|---|---|
| 1. | Low | 18 | 15.00 |
| 2. | Medium | 83 | 69.17 |
| 3. | High | 19 | 15.83 |

Table 1 revealed that majority (69.17 per cent) of the respondents had 'medium' use of medicinal plants. This might be due to medium knowledge about the use of medicinal plants and better access to the medicinal plant due to forest area. Above finding is similar to the findings of Sharma (2000) [2], Anand and Singh (2001) [1] and Shilorkar (1991) [3].

**Table 2:** Distribution of the respondents according to their use of medicinal plants

| Sr. No | Disease name | Plant name | Part used as medicinal purpose | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Seed | | Root | | Stem | | Bark | | Leaves | | Flower | | Fruit | | Rhizome | | Bulb | |
| | | | F | P | F | P | F | P | F | P | F | P | F | P | F | P | F | P | F | P |
| 1 | Fever | *Aegle marmelos* | | | | | | | | | 72 | 60 | | | 10 | 8.33 | | | | |
| | | *Allium sepa* | | | | | | | | | | | | | | | 4 | 3.33 | | |
| | | *Allium sativum* | | | 7 | 5.83 | | | | | | | | | | | | | | |
| | | *Azadirachta indica* | | | | | | | 22 | 18.33 | 87 | 72.5 | | | | | | | | |
| | | *Aristolochla indica* | | | 70 | 58.33 | | | | | | | | | | | | | | |
| | | *Foeniculum vulgare* | 87 | 72.5 | | | | | | | | | | | | | | | | |
| | | *Hemidesmus indicus* | | | 76 | 63.33 | | | | | | | | | | | | | | |
| | | *Helarina Jubesons* | | | | | | | | | 7 | 5.8 | | | | | | | | |
| | | *Hibiscus rosa cynasis* | | | | | | | | | | | 12 | 10 | | | | | | |
| | | *Adhatoda vasica* | | | | | | | | | 83 | 69.17 | | | | | | | | |
| | | *Nictanthus arbortristis* | | | | | | | | | | | 11 | 9.16 | | | | | | |
| | | *Piper nigrum* | 72 | 60 | | | | | | | | | | | | | | | | |
| | | *Ocimum tenuiflorum* | | | | | | | | | 74 | 61.66 | | | | | | | | |
| | | *Syzygium aromaticum* | | | | | | | | | 2 | 1.66 | 41 | 34.16 | | | | | | |
| | | *Other plant* | | | | | | | | | | | | | | | | | | |
| | | *Pongamia pinnata* | | | | | | | 52 | 43.33 | | | | | | | | | | |
| | | *Phyllanthus amanus* | | | | | | | | | 37 | 30.83 | | | | | | | | |
| | | *Argemone maxicana* | | | 21 | 17.5 | | | | | | | | | | | | | | |
| | | *Trichosanthus anguina* | | | | | | | | | | | | | 2 | 1.66 | | | | |
| | | *Terminalia chebulla* | 10 | 8.3 | | | | | | | | | | | | | | | | |
| | | *Dried ginger* | | | | | | | | | | | | | | | 25 | 20.83 | | |
| | | *Cassia fistula* | | | | | | | | | 4 | 3.31 | | | | | | | | |
| | | *Myristica fragrance* | 8 | 6.66 | | | | | | | | | | | | | | | | |
| | | *Phyllanthus emblica* | | | | | | | | | | | | | 9 | 7.5 | | | | |
| | | *Calatropis giganetea* | | | | | | | | | 2 | 1.66 | | | | | | | | |
| 2. | Cough | *Vaterica indica* | | | | | | | 3 | 2.5 | | | | | | | | | | |
| | | *Colocassia esculenta* | | | | | | | | | 1 | 0.83 | | | | | | | | |
| | | *Glycyrrhiza glabra* | | | | | 8 | 6.67 | | | | | | | | | | | | |
| | | *Solanum surattense* | | | | | | | | | 43 | 35.83 | | | | | | | | |
| | | *Glycyrrhiza glabra* | | | 68 | 56.66 | | | | | | | | | | | | | | |
| | | *Acorous calamus* | | | | | 46 | 38.33 | | | | | | | | | | | | |
| | | *Piper nigrum* | 68 | 56.66 | | | | | | | | | | | | | | | | |
| | | *Cannabis sativa* | | | | | | | | | 44 | 36.66 | | | | | | | | |
| | | *Phyllanthus emblica* | | | | | | | | | 30 | 25 | | | 58 | 48.33 | | | | |
| | | *Calotropis giganetea* | | | | | | | | | 52 | 43.33 | | | 3 | 2.5 | | | | |
| | | *Azadirachta indica* | | | | | | | | | 92 | 76.66 | | | | | | | | |
| | | *Acacia nilotica* | 69 | 57.5 | | | | | | | | | | | | | | | | |
| | | *Terminalia bellirica* | | | | | | | | | | | | | 60 | 50 | | | | |
| | | *Eucalptus globulus* | | | | | | | | | 94 | 78.33 | | | | | | | | |
| | | *Piper betle* | | | | | | | | | 100 | 83.33 | | | | | | | | |
| | | *Achranthes aspera* | | | | | | | | | 88 | 73.33 | | | | | | | | |
| | | *Ocimum tenuiflonum* | | | | | | | | | 76 | 63.33 | | | | | | | | |
| | | *Zingiber officinale* | | | | | | | | | | | | | | | 35 | 29.16 | | |
| | | *Allium cepa* | | | | | | | | | | | | | | | | | 9 | 7.5 |
| | | *Allium sativum* | | | | | | | | | | | | | | | 15 | 12.5 | | |

| | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | *Syzygium aromaticum* | | | | | | | | | | | | | 45 | 37.5 | | | | | |
| | | *Momordica charantica* | | | | | | | | | | | | | 42 | 35 | | | | | |
| | | *Adhathoda vasica* | | | | | | | | | 105 | 87.5 | | | | | | | | | |
| | | *Pterocarpus marsupium* | | | | | | | 28 | 23.33 | | | | | | | | | | | |
| | | *Curuma longa* | | | | | | | | | | | | | | | 3 | 2.5 | | | |
| | | *Cyprus rotundus* | | | | | | | | | | | | | 9 | 7.5 | | | | | |
| | | *Clerodendrum serratum* | | | 2 | 1.66 | | | | | | | | | | | | | | | |
| | | *Elettaria cardamomum* | 22 | 18.33 | | | | | | | | | | | | | | | | | |
| | | *Piper longum* | 9 | 7.5 | | | | | | | | | | | 2 | 1.66 | | | | | |
| | | *Trachspermum ammi* | 2 | 1.66 | | | | | | | | | | | | | | | | | |
| | | *Terminalia chebula* | 3 | 2.5 | | | | | | | | | | | | | | | | | |
| | | *Ficus racemosa* | | | | | | | | | | | | | 4 | 3.33 | | | | | |
| | | *Cinnamomum zeylanica* | | | | | | | 5 | 4.16 | | | | | | | | | | | |
| 3 | Cold | *Ocimum tenuiflorum* | | | | | | | | | 117 | 97.5 | | | | | | | | | |
| | | *Zingiber officinale* | | | | | | | | | | | | | | | 112 | 93.33 | | | |
| | | *Curcuma longa* | | | | | | | | | | | | | | | 68 | 56.66 | | | |
| | | *Cassia senna* | | | | | | | | | 62 | 51.66 | | | | | | | | | |
| | | *Piper nigrum* | 96 | 80 | | | | | | | | | | | | | | | | | |
| | | *Elettaria cardamum* | 31 | 25.83 | | | | | | | | | | | | | | | | | |
| | | *Cuminum cymium* | 51 | 42.5 | | | | | | | | | | | | | | | | | |
| | | *Eucalyptus globulus* | | | | | | | | | 47 | 39.16 | | | | | | | | | |
| | | *Adhathoda vascia* | | | | | | | | | 67 | 55.83 | | | | | | | | | |
| | | *Cyperus rotundus* | | | | | | | | | | | | | 30 | 25 | | | | | |
| | | *Calatropic giganetea* | | | 2 | 1.66 | | | | | | | | | | | | | | | |
| | | *Syzygium aromaticum* | | | | | | | | | | | 32 | 26.66 | | | | | | | |
| | | *Brasscia juncea* | 18 | 15 | | | | | | | | | | | | | | | | | |
| 5 | Bleeding from nose | *Rose centifolia* | | | | | | | | | | | 71 | 59.16 | | | | | | | |
| | | *Helianthus annus* | | | | | | | | | | | 61 | 50.83 | | | | | | | |
| | | *Terminalia chebula* | | | | | | | | | | | | | 79 | 65.83 | | | | | |
| | | *Terminalia bellirica* | | | | | | | | | | | | | 81 | 67.5 | | | | | |
| | | *Phyllanthus emblica* | | | | | | | | | | | | | 81 | 67.5 | | | | | |
| | | *Ocimum tenuiflorum* | | | | | | | | | 56 | 46.66 | | | | | | | | | |
| | | *Vitis vinifera* | | | | | | | | | | | | | 46 | 38.33 | | | | | |
| | | *Other plant* | | | | | | | | | | | | | | | | | | | |
| | | *Desmostachya bipinnata* | | | | | | | | | 82 | 68.33 | | | | | | | | | |
| | | *Allium cepa* | | | | | | | | | | | | | | | | | 36 | 30 | |
| | | *Cuminum cymium* | 17 | 14.16 | | | | | | | | | | | | | | | | | |
| 6 | Asthma | *Glycyrrhiza glabra* | | | | | 96 | 80 | | | | | | | | | | | | | |
| | | *Viola serpens* | | | | | | | | | 17 | 14.16 | | | | | | | | | |
| | | *Zingiber officinale* | | | | | | | | | | | | | | | 30 | 25 | | | |
| | | *Piper nigrum* | 45 | 37.5 | | | | | | | | | | | | | | | | | |
| | | *Terminalia arjun* | | | | | | | 31 | 25.83 | | | | | | | | | | | |
| | | *Piper betle* | | | | | | | | | 78 | 65 | | | | | | | | | |
| | | *Other plants* | | | | | | | | | | | | | | | | | | | |
| | | *Mangifera indica* | | | | | | | | | | | | | 63 | 52.5 | | | | | |
| | | *Plantago ovatoforsk* | | | | | 31 | 25.83 | | | | | | | | | | | | | |
| | | *Tamarindus indica* | | | | | | | | | | | | | 3 | 2.5 | | | | | |
| | | *Piper longum* | 9 | 7.5 | | | | | | | | | | | | | | | | | |
| | | *Aegle mormelos* | | | | | | | | | 16 | 13.33 | | | | | | | | | |
| | | *Myristica fragrance* | | | | | | | | | | | | | 14 | 11.66 | | | | | |
| | | *Datura stramonium* | | | | | | | | | 5 | 4.16 | | | | | | | | | |
| | | *Linseed* | 17 | 14.16 | | | | | | | | | | | | | | | | | |

**Result and Discussion**

In this study can conclude that data regarding use of indigenous medicinal plants used in treatment of cough, cold & asthma disorder.

It is seen from the Table 2 that majority of the respondents were using *Founiculum vulgar, Hemidesmus indicus, Azadirachta indica, Adhatoda vasica* for the tretment of fever. For treatment of cough majority of the respondents were using *Acacia nilotica, Glycyrrhiza glabra, Azadirachta indica, Eucalyptus globules, Piper betel, Achranthes aspera* while the treatment of cold majority of the respondents were using *Piper nigrum, Ocimum tenuiflorum, Zingiber officinale*.

*Rose centifolia, Terminalia chebula* and *Terminalia bellirica* were used for the treatment of nose bleeding whereas *Glycyrrhiza glabra* was used for asthma.

**Conclusion**

It is concluded that most of the tribal women reported the

difficulty in storage of seasonal medicinal plants. Therefore, technique of storage of seasonal medicinal plants needs to be disseminated to tribal women through extension programme. Increasing plantation of medicinal plants programme has great promise in the area. The potential is so great that medicinal and forest plants would change the economy of the farming community and world provide gainful employment of tribal women.

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