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Some Unique Herbal Remedies Against Cough and Cold From Marathwadi Ghat Areas in Beed District (M.S.) India

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Abstract

An extensive field visits were arranged in Imampur Ghat areas to document the ethno-medicinal uses of the wild and native ethno-flora utilized for curing cough and cold in traditional way. The information is collected from the local inhabitants through verbal interviews in an informal ways during the period from pre-monsoon of 2009 to the post-monsoon of 2011.The paper focuses traditional use of 34 genera belonging to 32 families recommended against certain kind of cough and cold by the local inhabitants.

Keywords: *Herbal remedy, Imampur Ghat, Traditional knowledge.*

1 Introduction

It has been realized in recent years that most of the plants were in use by the traditional healers, hakims and ethnic societies of the world either as a food or as herbal drugs in the ancient time. Being a part and progeny of the universe, man found utilizing the plants for his specific needs and necessities viz. food, medicine, fodder, agricultural tools, house construction etc. Recent target specific herbal medicines have been arrived as a result of human interactions with the surrounding bio-nature, especially plants since the ancient times. Since the last three to four decades considerable progress has been made in the field of ethno-medicinal remedies due to the use of certain plants and their parts in the medicine demands of rural, aboriginal and tribal populace. These herbal drugs are affordable, more reliable, relatively target effective, easily available in market and are manufactured traditionally with the eco-friendly manners.

2 Study Area

Being a beautiful hilly panorama, Imampur Ghat in the district is a part of the Garbhagiri hills. It represents the rich ethno-floristic diversity, situated at a distance of 26 km along the north-western side of the Ahmednagar tahasil. It lies between 18°16’33”N - 19°35’58”N latitude and 73°86’68”E - 77°68’38”E longitude. The study area is occupied by 33% of mixed type of vegetation and experiences an average rainfall of 221.8 cm/yr **[1]**. It remained inhabited to certain extent by the native inhabitants including the traditional healers and vaidyas for curing specific kind of cough and cold in traditional manners.

3 Review of Literature

Recent interests in ethno-medicinal explorations increased due to the work by **[2-12].**

4 Methodology

Frequent field tours were arranged in the study area during the period from pre-monsoon of 2009 to post-monsoon of 2011 to collect the ethno-medicinal information regarding cough and cold curing properties of the native ethno-flora among the local inhabitants, traditional healers and vaidyas. The parts from the plants of ethno-medicinal significance were collected though prior permission from authorities of Ahmednagar Forest Division. Help for knowing local names of the plants was taken from the local knowledgeable informants **[13-15].**The information was confirmed through the traditional healers from nearby areas through verbal means in an informal ways.

The voucher specimens were prepared and confirmed by referring the standard floras **[16-17] and** preserved as per plan **[18]** in the Department of Botany, Shri Dnyaneshwar Mahavidyalaya Newasa for future study and reference.

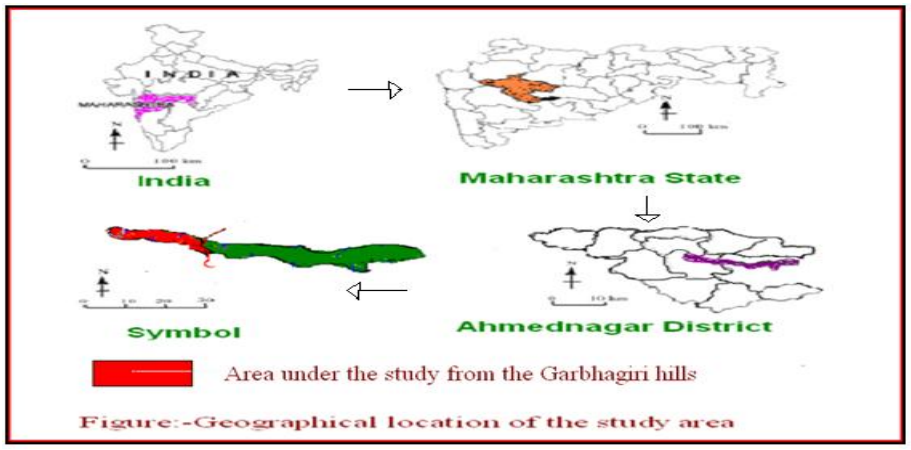


Figure:-Geographical location of the study area

5 Enumeration/Result

The plant species enumerated in an alphabetical order according to botanical name with family (in parenthesis) followed by local name, plant part used and ethno-medicinal uses. Unknown or less known uses are marked with an asterisk (*) sign.

Table:1-Detailed analysis of the plant species used in cough and cold cure

Sr. No.	Botanical Name	Local name	Occurence	Habit	Plant Part	Herbal formulations for treatment
1.	*Abrus precatorius* L. (Fabaceae)	Lal-gunj	Rare	Herb	Leaf	2-3 tolas fresh leaves are crushed in goat's milk with a pinch of haldi (*Curcuma domestica*) powder,cinnamon (*Cinnamomum zeylanicum*) and sunth (*Zingiber officnale*) rhizome powder and given orally twice a day for 5-8 days to cure cough and sore throat.
2.	*Acacia catechu* (L.f.) Willd. (Mimosaceae)	Lal khair	Common	Tree	Wood (stem)	1-2 tsp heartwood powder is boiled with sunth (*Zingiber officinale*) powder, haldi (*Curcuma domestica*) powder and jeshthmadh (*Glycirrhiza glabra*) powder (a pinch each) in 1-2 glass goat's milk and above formulation given orally once a day in the morning up to 6-8 days to relieve cough and laryngitis.
3.	*Acanthospermum hispidum* (Roxb.) Willd. (Asteraceae)	Landga	Common	Herb	Root	A tsp root powder boiled with 1-2 tsp of honey in a glassful of coconut milk and above preparation is given once daily in the morning with an empty stomach up to 6-8 days to cure cough.
4.	*Adhatoda zeylanica* Medic. (Acanthaceae)	Adulsa	Rare	Shrub	Leaf	An extract of handful of fresh leaves, 2-3 tsp of Dhane (*Coriandrum sativum*) and 2-3 tsp of fresh root bark is pounded in a cup of water is administered orally once a day in morning for 15-18 days to cure chronic cough.

5.	*Adiantum capillus-veneris* L. (Adiantaceae)	Hansraj	Rare	Fern	Frond	An extract from a handful of fresh fronds in a cup of coconut milk is given internally twice a day for 4-6 days to cure whooping cough.
6.	*Anogeissus latifolia* (Roxb. ex DC.) Wall. ex. Guill & Perr. (Combretaceae)	Dhamoda	Rare	Tree	Stem(bark)	Fresh stem bark pieces (3 inches long) are dipped in honey and chewed or swallowed twice daily up to 6-8 days for curing cough.
7.	*Boerhaavia diffusa* L. (Nyctaginaceae)	Lal-punarnava	Common	Herb	Root	2-3 tola fresh roots are crushed with 3-4 kale mire (*Piper nigrum*) seeds in 2-3 tsp of honey and above preparation is given once a day in the early morning up to 8-10 days to cure cough and cold.
8.	*Bosswellia serrata* Roxb. ex. Coleb (Lythraceae)	Salai	Rare	Tree	Stem(bark)	A handful of dried stem bark is burnt with 2-3 fresh leaves of Neem (*Azadirachta indica*) plant and the fumes are inhaled twice daily against cough and cold.
9.	*Capparis divaricata* Lam. (Capparaceae)	Pachunda	Rare	Shrub	Root	Aatpav fresh and young roots are crushed with 2-3 tsp Haldi (*Curcuma domestica*) rhizome powder and equal amount of sunth (*zingiber offcinale)* powder in a glass of sheep's milk and the extract is given orally twice a day for 12-15 days to get relief from cough and cold.
10.	*Caralluma adscendens* var *fimbricata* (Wall.) Gravely & Mayumath. (Asclepiadaceae)	Shindal	Rare	Herb	Stem	Extract from 4-5 fresh and young 2-3 inches long stem pieces in a cup of coconut milk is mixed with a pinch of black (*Piper nigrum*) pepper powder, 1-2 tsp of sunth (Zingiber officinale) powder and little quantity of rock salt and the mixture is given orally twice a day for 3-4 days to the patient to treat cough and cold.
11.	*Celastrus paniculatus* Willd. (Celastraceae)	Malkangoni	Common	Shrub	Stem (bark)	A handful of fresh and young stem bark pieces extracted in a cup of goat's milk is given with 1-2 tsp of honey to the patient twice a day for 4-6 days against cough and cold.

12.	*Citrullus colocynthis* (L.) Schrad. (Cucurbitaceae)	Kadu Indravan	Common	Climber	Root	A handful fresh and healthy root pieces are boiled with 2-3 kavil-vel (*Hemidesmus indicus*) leaves, 5-6 Pithawani (*Securinega leucopyrus*) fruits and 10-12 Kale mire (*Piper nigrum*) in a glass of coconut milk and a cup of extract is given twice a day up to 18-21 days to cure whooping cough.
13.	*Cleome gynandra* Linn. (Capparaceae)	Pandhri Tilwan	Common	Herb	Seed	Seed powder is filled in Tembhurni (*Diospyros melanoxylon*) leaves filled with leaf powder are rolled like bidi (cigarette) and smoked once dailyat night before bedtime up to 18-21 days to cure cough.
14.	*Combretum albidum* G.Don (Combretaceae)	Madwel	Rare	Shrub	Fruit	One to two tsp of fruit powder is burnt with a pinch of alum powder and the fumes inhaled once a day at night before sleep up to 15-18 days to cure cough and cold.
15.	*Curcuma domestica* Valet. Syn.*C. longa* Linn (Zingiberaceae)	Ambe-halad	Cultivated crop plant	Herb	Rhizome	An extract from one masa rhizome boiled with two tsp awla fruit (*Emblica officinalis*) powder and equal amount of Korphad leaves (*Aloe vera*) extract in two cups coconut milk is given orally with a tsp of honey twice a day for 10-12 day to cure cough and cold.
16.	*Cuscuta reflexa* Roxb. (Cuscutaceae)	Amarvel	Common	Climber	Stem (shoot)	Pavsher fresh and tender shootsare boiled with little quantity of black pepper (*Piper nigrum*) powder and 1-2 tsp sunth (*Zingiber officinale*) powder in a glass of cow's urine and above formulation is given twice a day for 18-21 days to cure cough and cold.
17.	*Datura metel* L. (Solanaceae)	Kala-dhotara	Rare	Herb	Flower (petal)	A handful of flower petals, two tsp sunth (*Zingiber officinale*) rhizome powder and equal quantity of turmeric (*Curcuma domestica*) powder are boiled in a glass of goat's milk and the infusion is given orally twice a day up to 5-7 days to cure cough and cold.

18.	*Desmodium gangeticum* DC. (Fabaceae)	Asud	Rare	Herb	Root	A cup of fresh root extract made in hot water is given with old gur (jaggery) twice a day up to 4-5 days to cure whooping cough.
19.	*Dichrostachys cinerea* Wt. & Arn. var. *indica* Brenon. & Brummit. (Mimosaceae)	Yeltur	Common	Shrub	Leaf	An aatpav fresh and tender leaves are boiled with a pinch of kate-ringni (*Solanum surattense*) leaves powder and rock salt (one tsp each) in a cup of luke warm water and above preparation is administered orally once a day at night up to 2-5 minutes for 5-7 days to relieve chronic cough.
20.	*Grewia tenax* (Forssk.) Fiori. (Tiliaceae)	Teltupati	Common	Shrub	Stem (bark)	*A handful of fresh stem bark and same quantity of leaves are crushed in a cup of rice cooked water with jire (*Cuminum cyminum*) seed powder and hing (*Ferula asafoedita*) powder (one tsp each) and the extract is given with a pinch of sugar twice a day up to 10-12 days to cure chronic cough with cold.
21.	*Indigofera linifolia* (L.)Retz. (Fabaceae)	Lal Godhadi	Common	Herb	Root	*An extract made from aatpav fresh roots in a cup of coconut milk with black (*Piper nigrum*) pepper, sunth (*Zingiber officinale*) powder, haldi (*Curcuma domestica*) powder and rock salt (one tsp each) is given orally once a day at night before bedtime up to 8-10 days for curing chronic cough
22.	*Kedrotis foetidissima* (Jacq.)Cogn (Cucurbitaceae)	Ran-mirchi	Rare	Climber	Leaf	*1-2 tsp of leaf extract boiled in a glass of goat's milk with a pinch of sugar to the children below twelve years age once a day in early morning for a period of 4-6 weeks to treat common cold
23.	*Momordica cochinchinensis* (Lour.) Spr. (Cucurbitaceae)	Ran-karla	Rare	Climber	Fruit	Extract from 2-3 fresh unripe fruits in a glass of luke warm water is given with 1-2 tsp of gur (Jaggery) once a daily in early morning for 6-8 weeks to treat cough

24.	*Mukia maderaspatana* (L.)Roem. (Cucurbitaceae)	Karad-kanguni	Rare	Climber	Leaf	Two to three tsp fresh leaves are boiled in a glass of goat's milk with 4-5 gm sunth (*Zingiber officinale*) powder,5-6 black pepper (*Piper nigrum*) seeds and a pinch haldi (*Curcuma domestica*)powder and above formulation is given orally twice a day up to 14-15 days to cure chronic cough and cold.
25.	*Occimum americanum* L.syn *O. canum* Sims. (Lamiaceae)	Ram-tulas	Common	Herb	Leaf	An extract from a handful of fresh leaves in a glass of rice starch is boiled with sunth (*Zingiber officinale*) powder and haldi (*Curcuma domestica*) powder (one tsp each) and the decoction is given orally twice a day for 8-10 days to cure cough,
26.	*Occimum basilicum* Linn. (Lamiaceae)	Sabja	Common	Herb	Leaf	Fresh, tender and healthy leaves chewed raw by the local livestock grazers to cure throat ache and cough.
27.	*Occimum tenuiflorum* L. (Lamiaceae)	Krishna-tulas	Cultivated crop plant	Herb	Leaf	Aatpav fresh and healthy leaves are boiled in a cupful goat's milk with a pinch of haldi (*Curcuma domestica*) powder and a tsp of sunth (*Zingiber officinale*) powder and above preparation is given internally twice a day up to 6-8 days to relieve cough and cold.
28.	*Opuntia stricta* var. *dillenii* (Ker-Gawl.) Benson. (Cactaceae)	Nivdung	Common	Shrub	Flower(petal)	An extract from aatpav fresh flower petals in a glass of luke warm water is given orally with 1-2 tsp of honey to the patient twice a day for 12-15 days to cure whooping cough.
29.	*Piper longum* L. (Piperaceae	Pimpli	Rare	Herb	Fruit	1-2 tolas fresh and ripen fruits are boiled with equal quantity of Kali Nirgudi (*Vitex negudo*) root powder and Ran vange (*Solanum anguivi*) fruit powder in 2-3 glasses of goat's milk and given with a pinch of sugar twice daily for 10-12 days to cure cough and cold.

30.	*Pongamia pinnata* (L.)Pierre. (Fabaceae)	Karan	Common	Tree	Stem	One to two inches long dried stem pieces are soaked in a glass of water containing a pinch of haldi (*Curcuma domestica*) powder for 5-10 minutes and then dried in for 2-3 hours. Same stem pieces and bound in a leather thread to make a garland which is tied around the neck up to 18-21 days to cure whooping cough.
31.	*Terminalia bellerica* (Gaertn.)Roxb. (Combretaceae)	Hela	Rare	Tree	Fruit	A tsp fruit powder, a pinch of turmeric (*Curcuma domestica*) rhizome powder and equal quantity of sunth (*Zingiber officinale*) powder is mixed in a cup of rice starch and given twice a day for 10-12 days to cure chronic cough
32.	*Trachyspermum strictocarpum* var. *hebecarpum* (C.B.Cl.) Wolff. (Apiaceae)	Pan-ova	Rare	Herb	Seed	The seeds are fried on the pan for 1-2 minutes and then ground to obtain fine powder which and given in a cup of goat's milk once daily at night for 3-5 days to cure cough and cold.
33.	*Tylophora dalzellii* Hook.f. (Asclepiadaceae)	Lahan Pittamari	Rare	Climber	Root	1-2 tsp of shade dried root powder is boiled in 2-3 cups of rice starch extract with a tsp of haldi (*Curcuma domesica*) and sunth (*Zingiber officinale*) powder and the decoction is given with a tsp of sugar once a day in the morning to cure cough and cold
34.	*Zingiber officinale* Rosc. (Zingiberaceae)	Sunth/Ale	Cultivated crop plant	Herb	Rhizome	About 1.5-2 tolas dried rhizome is boiled in rice cooked water with 1-2 tsp of kale mire (*Piper nigrum*) seed powder and 1-2 lasun (*Allium sativum*) cloves and above decoction is given orally with 1-2 tsp of honey once daily up to 10-12 days to cure cough and cold.

5. Abbreviations:

tsp-tablesppon,1 masa-1 gm, tola-10 gm, aatpav-100gm, pavsher-250 gm,1 cup-100 ml, half litre -500 ml.

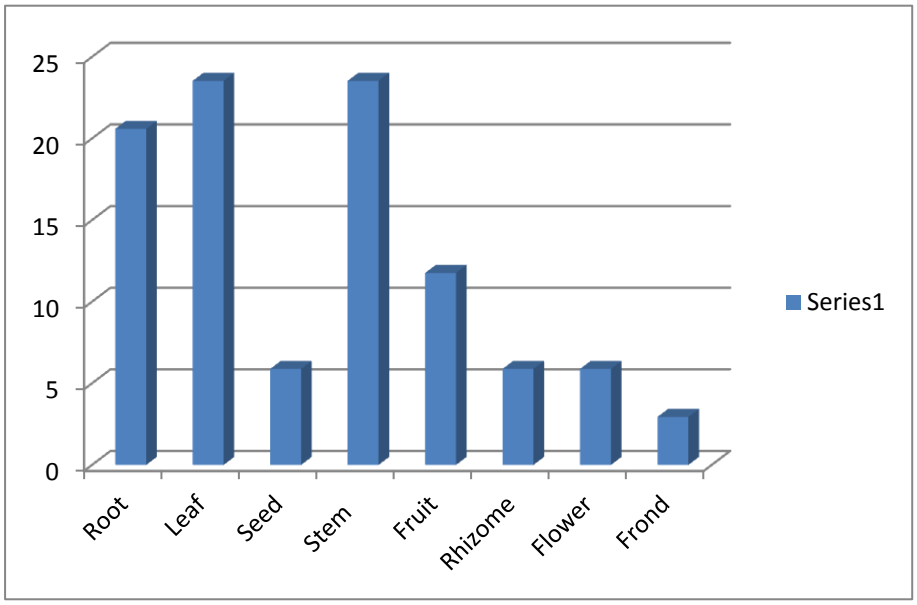
6. Discussion

In all total 34 genera belonging to 32 families have been reported from the study area during the field visits (table:1). The plants were in use by the local inhabitants as a remedy against certain kind of cough and cold. Some of the taxa possess great potential of better economic exploitation and trade use viz. *Bosswellia serrata* (Salai), *Anogeissus latifolia* (Dhamoda), *Combretum albidum* (Madwel), *Trachyspermum strictocarpum* (Pan-ova), *Adhatoda zeylanica* (Adulsa), *Datura metel* (Kala-dhotara), *Caralluma adscendens* var *fimbricata* (Shindal makadi), *Tylophora dalzellii* (Lahan Pittamari), *Mukia maderaspatana* (Karad-kanguni), *Kedrotis foetidissima* (Ran-mirchi), *Momordica cochinchinensis* (Ran-karla), *Piper longum* (Pimpli), *Citrullus colocynthis* (Kadu indravan), *Terminalia bellerica* (Hela) and *Opuntia stricta* var. *dillenii* (Nivdung).Since all of the plant species are in use throughout the world in more or less proportion, they have wide scope for bio-prospecting. Therefore our prime duty should be to protect, conserve and maintain the native wild as well as cultivated ethno-flora in a proper way for our future studies.

1.1. Table: 2- Plant parts used in number of plant species with their percentage

Out of the plant species studied (table:2), majority of the preparations i.e. eight are from leaves and stem each (23.53%) followed by seven preparations from roots (20.59%),four preparations from fruits (11.76%), one preparations from fronds (2.94%)and remaining two preparations from rhizomes, seeds and flower parts each (5.88%) found to have uses in cough and cold treatments.

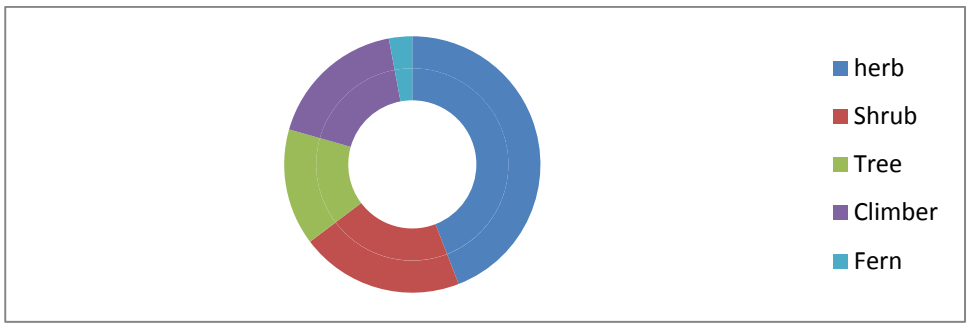
Plant part used	Root	Leaf	Seed	Stem	Fruit	Rhizome	Flower	Frond
No. of plant species	07	08	02	08	04	02	02	01
% of plant parts used	20.59	23.53	5.88	23.53	11.76	5.88	5.88	2.94



1.2. Table: 3- Habit wise analysis of the plants with their percentage:

Out of the plant species studied (table:3),majority of the plant species (i.e.15) are herbs (44.12 %) followed by seven plant species shrubs (20.59 %), six plant species climbers(17.65 %), five plant species trees (14.71 %) and remaining one plant species (2.94 %) found fern.

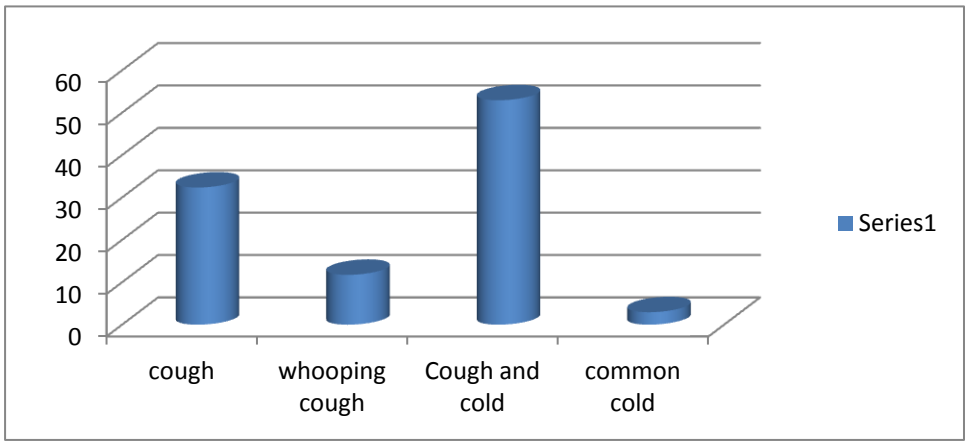
Habit	herb	Shrub	Tree	Climber	Fern
No. of plants species	15	07	05	06	01
% of plant species used	44.12	20.59	14.71	17.65	2.94



1.3. Table: 2- Number and percentage of plants used in cough and cold cure:

Out of the plant species studied (table:3),majority of the plants (i.e.11) are used in cough cure (32.35%) followed by four plants in whooping cough cure (11.76%), eighteen plants (52.94%) and one plant (2.94%) found to have uses in common cold treatment.

Name of disease	cough	whooping cough	Cough and cold	common cold
No. of plants used	11	04	18	01
% of plant species used	32.35	11.76	52.94	2.94



7. Conclusion

Area under the study,is located in Ahmednagar tahasil of same district. The information was collected from as per the schedule from the traditional healers, local knowledgeable informants, vaidyas and hakims who reside in the nearby areas and found dependant on the native plant resources. The knowledge regarding use of native plant species in cough and cold cure found transmitted to them from their forefathers verbally in an informal ways by profession **[19].**

Unfortunately, most of the traditional ethno-botanical knowledge in India is eroding at faster rate days after days due to losses of the ancient traditions and culture as they are mostly oral **[20].**Due to their continuous and progressive

exposure to modernization, there is serious threat about extinction of such rich heritage of information in the coming future. In order to collect, conserve and maintain it, collective efforts are needed from the NGOs, government authorities, ethno-botanists and the pharmaceutical industries. To achieve the target, documentation and computerization of useful medicinal plants with their traditional uses **[21]** should be initiated at national as well as international level.

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