



Study of some sacred groves and sacred plants with their ethno-botanical importance in Ambaji forest of North Gujarat, India

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Abstract:

Ambaji range forest of North Gujarat belongs to Banaskantha District. It is a part of Ambaji-Balaram wildlife sanctuary. North Gujarat is falling under *Boswellia* forest type1. The Adivasi (local people) dwelling in the forest has good knowledge of herbal medicine. The term 'Ethnobotany' was first coined to encompass entire studies concerning plants, which describe local people interaction with the natural environment. Its scope was much elaborated later. Present Ethnobotany links diverse disciplines such as anthropology, botany, linguistics, nutrition, ecology, conservation, economics and pharmacology, opening a wide field yet to enrich the human knowledge. Present paper deals with an ethnobotanical study of medicinal plants used in sacred groves like Mahadev Ramapir SGs: (Village- Banodara), Nageshwar Mahadeva Sacred Grove SGs (Village-Padaliya), and Bhakhar Babo Bavji SGs (Village - Ambalimala-Saraschapri), of Ambaji forest. The 31 plant species belonging to 25 families were collected and explained its exact botanical name with family, local name and folk uses for number of diseases. These sacred groves are being protected for generations together to maintain the unique diversity, endemic, medicinal and useful valued species. Extensive field trips were carried out in the sacred grove at monthly intervals. Specimens of flowering plants were collected and identified with the aid of different regional floras.

Key words: Ethnomedicinal Plants, Sacred Groves, Ambaji forest.

Introduction:

The traditional worship practices show the symbiotic relation of human beings and nature. Indigenous communities all over the world lived in harmony with the nature and conserved its valuable biodiversity. Plant has a vital role in human welfare and are continued to be valued industrial, economic, commercial and medicinal resources and some subcontinent with its wealth and variety of medicinal, many of which are even today in common uses much of which is steadily being eroded (Dastur, 1951; Mitra, 1922; Schulted,1960).

The aim of Ethnobotany is to study how and why people use and conceptualize plants in their local environments. Plants have been used in the traditional healthcare from time immemorial, particularly among tribal communities (Laloo et al. 2006) Sacred groves are one of the ways to of the conservation of biodiversity. While trying to understand and document the indigenous knowledge of resource management practices. Collection and removal of any material from the Sacred Groves is prohibited (Khan & Rai, 1987; Tripathi et al.,1989). Sacred groves or sacred trees serve as a home for birds and mammals, and hence, they indirectly help in the



conservation of living organisms (Islam et al.,1998. Vasudeva et al.,2003; Airi et al.,1997). Protection of a large number of medicinal plants in sacred forests of different parts of India is some of the well documented by earlier studies (Vartak et al., 1987; Bhakat & Pandit 2003) It is also observed that more than 35,000 plant species are being used around the world for medicinal purposes. The communities residing in these rich biodiversity areas have rich traditional wisdom of herbal medicines. Almost every village has a Bhuva (tantric/cosmic healers), a Bhagat (religious healers) or a Vaida (herbal healers) who are carriers of the traditional Knowledge. This is much evident from various studies and documentation undertaken in the past in the areas of ethno-botany, ethno-medicine, tribal culture, livelihood, veterinary medicine etc. (Bedi, 1968; Shah, 1983 and Umadevi, 1988; Oza, 1991; Punjabi, 1998).

Methodology:

Study area:

Ambaji range forest is a part of Danta taluka situated on eastern part of the Banaskantha district in North Gujarat. Out of 300 sq. km. geographical area of the range, about 542 sq. km is notified as Ambaji-Balaram wildlife sanctuary. These forests are inhabited by a variety of ethnic groups including the tribes like Bubadiya, Parghi, Taral, Bhemiyat, Dhrangi, Khair, Laur, Makwana, Dabhi, Solanki, Chauhan, Gamar, Parmar, Rohisa, Rathod, Mansi, Damor, Khermal, Kodarvi etc. These tribes cover 48 per cent of the total population. The two main rivers Banas and Sabarmati and their tributaries are contributing to the enrichment of floral components. The average annual rainfall is about 725mm. Ambaji range forest is representing 434 angiosperm species (20% of the Gujarat flora) belonging to 85 families. The forest type is dry deciduous and scrub (Champion and Seth, 1968) and it harbors about 400 tracheophyte plant species, including pteridophytes, gymnosperms and angiosperms. These forest areas are inhabited by around 20 tribes. Tribal people of Ambaji forest range directly depend upon forest resources for their daily needs.

Data collection:

The study area was surveyed regularly to record the floristic wealth of sacred grove of Ambaji forest areas. Various field trips were arranged and specimens were collected, identified with the help of Flora of the Presidency of Bombay and Gujarat Flora and properly processed through standard methods. Special note on the ethno botany were noted. Plant species were arranged according to Bentham and Hooker's classification given in the Gujarat Flora. Here



documented 31 plant species were belonging to 29 genera and 25 families. Field notes with special reference to their distributional and regeneration status were noted. The data were collected from the following sacred groves.

Mahadev Ramapir SGs

Caretaker: Kesarbhai Senabhai Kodarvi

History: Mahadev Ramapir sacred grove is 35 years old, situated in dense forest of Ambaji – Danta at the village Banodara. The idols are in sequence such as Mahadev Ramapir, Gogabapji, Mamaji & Ashapuramataji. Tribal people of this area worship to god in the Gujarati month of “Vaishakh” at morning & evening time & also special adoration at every Saturday in evening time. No acceptance of any gift from tribal people. Caretaker Senabhai had given this knowledge to his son Kesarbhai & further will be given to Kesarbhai’s son Jayantibhai. This temple is established inside the house.

Pledge: In case of infertility & typhoid the tribal lady pledge to the god Ramadev pir. In case of disease & severe pain they worship to the god Bholenath. In case of mental disease they worship to the god Mamaji Dev. The folk belief that after fulfillment of the wish the deity is respected by Coconut & the sweet “Mohanthal”. It’s called “Mithipuja”.

Nageshwar Mahadev SGs

Caretaker: -Bhagaram

History: Nageshwar Mahadeva sacred grove is situated in dense forest. Sacrifice is done in week & wood of the plant sandal wood is used. The person passing by goes to Darshan of God. After fulfilling many of the wishes deity represents the sweet “SAKARIYA” to the god.

Bhakhar Babo Bavji SGs

Caretaker: Vakhtabhai Bhagora- 85 years

History: This grove is 100 years old and situated on top of the hill at Ambalimala-Saraschapi village. It is built on the Babodev Hill. The tribal people worship & take vow before God & on completion of that vow, they represent horse idol, Sukhdi, Coconut, full dish. If there is a big vow, they also represent goat sacrifice. Sukhdi is dedicated on the morning of Diwali. The grove is mainly under *Terminalia*, *Albizia*, *Holarrhena*, *Cassia fistula*. According to their belief, they do not cut these trees because it is God's place.



Informators: Devliben Parmar - 45 years, Kedi baa Parmar- 75 years, Reshmabhai Bhagora- 19 years, Peniben Bhagora, Hamira bhai.



Figure 1 to 5: Sacred groves and plants at Ambaji forest, North Gujarat, India

Results and Observations

Present works deals with identify folklore medicinally important plants frequently used by rural communities of sacred groves in central India. A total of 3 sacred groves and 31 Ethnomedicinal Plants were enumerated.

Sacred Plants with Their Ethno-Botanical Importance in Ambaji Forest

1. *Miliusa tomentosa* (Roxb.) Sinclair [UMPH, UMBIYO]; Annonaceae
 - Fresh roots are tied at abdomen to cure tumors [Jivabhai].
2. *Crateva nurvala* Buch.-Ham. [VAYVARNO]; Capparaceae
 - Dried bark paste is applied twice a day on abscess [Somabhai].
3. *Flacourtia indica* (Burm. f.) Merr. [KANTI]; Flacourtiaceae
 - Few root pieces are boiled in water and applied on the poisonous animal bites [Somabhai].
4. *Bombax ceiba* L. [SIMLO, SAVAR]; Bombacaceae



About 100g of fresh inner bark is crushed into paste and applied on broken horn of cattle. It sets well in few days. [Nopabhai].

Fresh stem bark paste (paste is made by rubbing stem bark on a moist stone) and applied on skin diseases and pimples. [Somabhai].

5. *Grewia hirsuta* Vahl. [SISOTI]; Tiliaceae

A glassful of stem extract is taken in the morning with empty stomach to join bones of human beings and cattles [Khemabhai].

6. *Aegle marmelos* (L.) Coec. [BILI]; Rutaceae

Boiled fresh leaves are applied for blood clotting [Arjanbhai].

Ripe fruits are edible and having medicinal properties [Shirmiben].

7. *Boswellia serrata* Roxb. [SALAD, DHUPELIO, GUGAL]; Burseraceae

Fresh leaves paste discarded water and bathing with this cures vomiting [Somabhai].

8. *Azadirachta indica* A. Juss. [NEEM, LIMDO]; Meliaceae

Inner bark is mixed with black pepper, salt and water. The mixture is taken thrice a day to cure fever. [Arjanbhai].

9. *Sapindus laurifolius* Vahl. [ARITHU]; Sapindaceae

Boiled leaf juice is given to children for curing vomiting. Leaves are used as fodder [Devabhai].

About 50ml of fresh leaf juice is taken regularly to cure fever after delivery [Somabhai].

10. *Mangifera indica* L. [KERI, AMBO]; Anacardiaceae

Dried malformed inflorescence are powdered and given with water to animals, as a cure for swollen stomach [Somabhai].

11. *Butea monosperma* (Lam.) Taub. [KHAKHRO, KESUDO]; Papilionaceae

About 250g fresh stem-bark is crushed with water and filtrate is taken once in a day to cure Diarrhea [Somabhai].

12. *Delonix elata* (L.) Gamble [HINDRO, SANDSRO]; Caesalpiniaceae

Four to five leaves are crushed with water and paste is made it is applied on eyelids for removal of eye diseases [Somabhai].

13. *Acacia nilotica* (L.) Del. subsp. *indica* (Bth.) Brenan [BAVAL]; Mimosaceae

100ml of stem bark decoction is taken once a day to cure stomach pain [Anabhai].

Leaf juice is given to cure sunstroke [Jivabhai].

14. *Anogeissus latifolia* (Roxb.) Wall. ex Bedd. [DHAVDO]; Combretaceae

Fifty grams of fresh stem bark is chewed regularly for curing cough [Jibvabhai].

15. *Terminalia bellirica* (Gaern.) Roxb. [BEHDR, BEHDA]; Combretaceae



□ About 5g of fruit powder is mixed with a glass of water and taken twice a day to cure sleeplessness. [Jivabhai].

16. *Alangium salvifolium* (L. f.) Wang. [ANKOLI, ANKOL]; Alangiaceae

□ About 100g fresh roots are rubbed with water and applied on the poisonous animal sting [Jivabhai].

17. *Adina cordifolia* (Roxb.) Bth. & Hk. f. ex Brandis [HALDU]; Rubiaceae

□ About 200g fresh stem bark is boiled in 400ml water, with sugar or honey. The mixture taken twice in a day to cure jaundice [Devabhai].

□ Five-inch piece of fresh stem bark is crushed with water and applied on mumps [Somabhai].

18. *Diospyros melanoxylon* Roxb. [TIBRU, TIMBRU]; Ebenaceae

□ Dried stem bark is smoke is inhaled to cure Asthma [Somabhai].

19. *Holarrhena antidysenterica* (L.) Wall ex G. Don [KUDA, DOLA KUDA]; Apocynaceae

□ Fresh roots are crushed with water, a tea spoonfull of this filtrate is taken once a day early in the morning cures diarrhoea [Nopabhai].

□ About 25g fresh roots are pounded with 100ml water and taken one spoonful as a for cure stomachpain [Nanabhai].

20. *Cordia dichotoma* Forsk. [VADGUNDO, MOTOGUNDO]; Boraginaceae

□ A glass of fresh leaf juice is taken thrice a day regularly to women as pain killer after delivery [Jivabhai].

21. *Cordia gharaf* (Forsk.) F. N. Will [GUNDI, NANI GUNDI]; Boraginaceae

□ A tea spoonfull of stem bark juice is given orally to cure dysentery [Somabhai].

□ About 50ml of leaf juice is given to cure dysentery. [Jivalabhai].

22. *Tecomella undulata* (Sm.) Seem [RAGAT ROHIDO]; Bignoniaceae

□ A teaspoonful of leaf juice is taken thrice a day to cure fever [Somabhai].

□ A tea spoonful of flowers powder is taken thrice a day regularly to cure cancer [Karimbhai].

23. *Clerodendrum multiflorum* (Burm. f) O. Ktze. [ARNI]; Verbenaceae

□ About 100 gms fresh leaves or soft stem branches are crushed and poultice is made used to relieve Eye pain [Jivabhai].

24. *Lantana camara* L. [DHANI DHARIYA]; Verbenaceae

□ Leaf paste is applied on animal ulcers [Devabhai].

25. *Vitex negundo* L. [NAGOD]; Verbenaceae.

□ Leaf paste is applied on rheumatic swellings [Devabhai and Somabhai].

26. *Euphorbia nerifolia* L. [THOR]; Euphorbiaceae

□ Fresh leaf paste is applied on abscess [Arjanbhai].



27. *Jatropha curcas* L. [RATANJOT]; Euphorbiaceae

□ Lalex is applied to cure toothache [Jallobhai].

28. *Ficus benghalensis* L. [VAD, VALLO]; Moraceae

□ Yellow old leaves are steamed and applied on abdomen to cure stomach pain [Devabhai].

29. *Ficus racemosa* L. [UMARO]; Moraceae

□ Fresh latex is applied on tongue to cure cough [Somabhai].

30. *Phoenix sylvestris* (L.) Roxb. [KHAJURI]; Arecaceae

□ A teaspoonful of root juice is taken twice a day to cure stomach pain [Nopabhai].

31. *Dendrocalamus strictus* Nees. [LAKADI]; Poaceae

Young shoot paste is applied externally to stop bleeding [Somabhai].

Conclusion:

The herbal medicines are mostly administered in the form of juice, decoction, paste or powder, prepared by a crude method from different plant parts such as root, bark, leaves, flowers, fruits, seeds and whole plant. In Madhya Pradesh of central India 265 sacred groves are reported (Srivastava, 1994) and plant worship in a way maintains local bio-diversity and plays an important role in its management and conservation. Women particularly, in both rural and urban areas, have developed faith in the number of plants by protection of the plant species. The sacred plants of Bundelkhand are actually worshipped throughout the areas to its mythological significance. Sacred groves homes of mother goddesses abound and some types of trees have attained great importance in *Hinduism*. In India out of 3000 communities 1/3, i.e., 1000 are endogenous groups practice totemism (Malhotra, 2005). Among many tribal communities, numbers of clans are named after plants and animals which are conserved (Jain and Sharma, 1996). Work on Traditional knowledge and indigenous medicinal plants used by tribal and local old age peoples of Amarkantak region and central India has been carried out by Kumar et al., (2004) and Sahu, (2010). Total 29 Sacred groves are reported from Ambaji forest of Banaskantha district of North Gujarat, India (Patel, 2015). These plants also play a vital role in the life of the people in the form of medicines treating various ailments. The present work suggests for natural conservation of sacred & medicinal plants and to provide incentives to local people participation for the same and also necessary action should be taken to preserve sacred groves of the forests conserved by indigenous people.

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