

## CUSTOMARY USE OF MANGROVE TREE AS A FOLK MEDICINE AMONG THE SUNDARBAN RESOURCE COLLECTORS

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### ABSTRACT

Folk medicines play an important role in rural sectors of India. Adjacent of the mangrove forest area of Sundarban is known as a rural sector. In long time, the traditional resource collectors in this area used different types of mangrove tree for their primary health disease. During the resource collection period they apply folk medicine and folk treatment using their traditional knowledge. Inside the forest it is the only available resource of any kind of health problems. The main objectives of the study are to identify their actual traditional knowledge practices on folk medicines and how to apply it for solving their day to day problems. The current review mainly focuses on traditional use of different mangrove plants as folk medicines in Sundarban. This paper has discussed the importance of mangrove plants in primary health care among the traditional resource collectors and chalked some points how to survive it through the sustainable use.

**KEYWORDS:** Folk Medicine, Traditional Knowledge, Mangrove Plants, Health Hazard, Sundarban

### INTRODUCTION

Traditional wisdom and knowledge often restore the cultural heritage and establishes the identity of a group in a particular locality. This traditional knowledge which passes from generation to generation by medicine men has a tremendous value on a particular society and its culture. Folk medicine and treatment is one of the important parts of traditional knowledge. Traditional medicine and its healing practices is about as old as written human history. Ancient Mesopotamia, which is the modern-day Middle East, the place is where the oldest texts about traditional medicine were found and they were sourced back to about 2100 BCE. There is evidence in clay tablets that sorcery, prayer and medicinal plants were used but also more conventional forms of medicine such as washing and bandaging.<sup>1</sup> The World Health Organization (WHO) defines traditional medicine as: "the health practices, approaches, knowledge and beliefs incorporating plant, animal and mineral-based medicines, spiritual therapies, manual techniques and exercises, applied singularly or in combination to treat, diagnose and prevent illnesses or maintain well-being."<sup>2</sup> According to The American Heritage Dictionary of the English Language, traditional medicine as practiced by nonprofessional healers or embodied in local custom or lore, generally involving the use of natural and especially herbal remedies.<sup>3</sup> So it is clear that, folk medicine, methods of curing by means of healing objects, herbs, or animal parts; ceremony; conjuring, magic, or witchcraft; and other means apart from the formalized practice of medical science.<sup>4</sup> The World Health Organization states that it is mostly practiced by indigenous or native populations and as much as 80% of the population in certain countries within Asia and Africa rely on it for primary care.<sup>5</sup> The traditional knowledge, particularly, related to the treatment of various diseases has provided leads for development of biologically active molecules by the technology rich countries. In other words, traditional knowledge is being exploited for bio-prospecting.<sup>6</sup> The villagers seek the advice of

these medicine men. They believed that by listening to their advice they could overcome health hazard. The resource collectors of Sundarban cling to the traditional medicinal plant like mangrove trees for treatment because of their belief in the traditional and secondly because of the lack of modern education and financial crisis. Even today, they use medicinal plant for treatment in case of non-severe diseases.

## **MATERIALS AND METHODS**

The present work is mainly based on primary data which were collected from Hingaljang and Gosaba blocks of West Bengal since 2011 to 2012. These study area is very significant for folk medicine studies owing to the dominance of different indigenous communities, like Mawali, Jele, Bawali and Munda. More than 25 specimens of mangrove medicinal plants were collected from the study area through repeated visits in different times. Vernacular or ethnic names of the species and the purpose of use by the ethnic groups were also recorded. The information given by the informants were cross-checked. The whole research was based on the approach of active community participation as researchers and the part of entire research emphasized on the forest resource collector's consent. Primary data collection methods of social science research were applied for qualitative data collection.

## **RESULTS AND DISCUSSIONS**

### **Importance Role of Folk Medicine on the Traditional Knowledge Holder (TKH)**

Folk medicines have good impact in rural sectors of Sundarban mangrove area. Rural poor and marginalized people of mangrove forest area depend on mangrove plants for primary health problems. During the resource collection period they stay few day's insight in the forest. In this period if they suffer any kind of health problems then they use mangrove plants to solve their health problems. They have not any other opportunity for solving this problem. In this situation bwall is remedies is important to them. The area when they go to collect resource is an isolated area and far from this habitats. So, naturally, there is no availability of health center nearby. So it is a time consuming matter for them to go to the health centre. The obstacles like geographical location and poor communication system stand in their ways. Besides, there traditional resource collections, when they go to forest, they go in group and return as a group. As there is no other way to return back except their boat, they do not leaved any person behind them. The crisis comes when somebody of their group falls ill. If they person has to be treated in modern way of treatment, the whole group has to return back with the ill man. As it is not possible every time, they, under compulsion, use the medicinal plant available these to some extent and so they depend on them traditionally.

### **Specialized Fields of Traditional Medical Practice in Mangrove Area of Sundarban**

#### **Kobiraj or Bidya (Herbalist)**

The Kobiraj or Bidya have traditional botanical and pharmacological knowledge about mangrove plants and fauna. They generated this knowledge about plants in the local medicine men.

#### **Bawalli or Gunin (Diagnosis Specialist)**

The Bawalli is an experienced TKH of Sundarban resource collection community. Local people believe that they have extra ordinary knowledge for forest environment. Some time they involve in trance communication with spirits, the supernatural and the physical entities that assist in the diagnosis and to save any kind of forest obstacles in sight of the

mangrove forest. They identify the ailments, remedies or ceremonies that are required to restore good spiritual, emotional, and physical health, and well-being<sup>7</sup>.

### Ojha (Healer)

The Ojha have deep connection with healing culture. They are known as gifted individuals of our folk society who may heal snakebites as well as common disease in a different ways, like touch and stroke method. Naturally they use ritualistic approach. They have a great power to use a variety of therapies to heal people spiritually, emotionally or physically<sup>8</sup>.

### KEY FACTORS OF HEALTH HAZARD IN TKH

One of the major problems of TKH of Sundarban is health problems. Majority numbers of TKH use folk medicine science of ancient period. Generally they depend on witch doctors or shaman for health problems so in most cases they don't get actual treatment, because of traditional beliefs and superstition. On the other hand due to lack of health centre they are compelled to come to this witch doctor. Their livelihoods and related environment are one of the main reasons of health hazard. In this investigation I found a majority number of TKH is suffering from different types of hazard like skin disease, stomach information, diarrhoea and injury infection. They suffer for a long time because of some key factors. The key factors are given below;

- Huge use of saline water
- Mangrove roots are responsible in many cases of skin diseases on root.
- Poisonous snake and insects
- Lack of drinking water
- Lack of proper sanitary system
- Lack of social health awareness or education
- Lack of health centre
- Economical hazard

### Traditional Practices of Folk Medicine in Primary Health Care (PHC) among the TKH of Sundarban

Traditional Knowledge Holders (TKH) of Sundarban have been using various species to treat various diseases. They are mostly used to cure skin diseases, poisonous snake bite, fever, allergies, headache, arthritis, diabetes, diarrhea, stomachache and nervous disorders. Different parts of mangrove plants are used as medicine by the local traditional knowledge holders. These are given below:

**Table 1**

Sl. No.	Vernacular Name	Scientific Name	Part Used	Disease	Traditional Use
1.	Garia	Kandelia Candel	Stem bark	Diabetics	Juice from the stem bark of the Garia tree is used to cure diabetics.
2.	Bakul Kakra	Bruguiera Parielora	Fruit	Eye diseases	The fruit of the Bakul Kakra tree is used for the treatment of some common eye diseases.

Table 1: Contd.,

3.	Jhamti Garan	Ceriops Decandra	Leaf	Haemorrhage	Leaf decoction of the Jhamti Garan tree is used to stop haemorrhage.
4.	Oda	Sonneratia Alba	Fruit	Acidity	Fruit of the Oda is used as a good digestive agent.
5.	Jat Baine	Avicennia Officinalis	Fruits	Blisters	Warm juice extracted from screen fruits of the Jat Baine tree helps in the treatment of sore or blisters.
6.	Chak Keora	Sonneratia Caseolaris	Stem bark	Haemorrhage	The Chak Keora tree is used to prepare vinegar and helps to stop haemorrhage.
7.	Kripan	Lumnitzera Racenosa	Young twig	Skin diseases	Young twig juice of the Kripan tree used to cure skin diseases.
8.	Garjan	Rhizophora Mucronata Lamk	Stem bark	Diabetes & Throat ache	Dust from stem bark of the Garjan tree helps to stop haemorrhage as well as cures diabetes.
9.	Keora	Sonneratia Apetala	Leaf and fruit	Diarrhea, Haemorrhage & Blisters	Leaf decoction of the Keora tree helps to cure stop haemorrhage and cures blisters. Fruits are also used to prevent in diarrhoea.
10.	Peyara Bain	Avicennia Marinavierh	Leaf	Pain	Leaf decoction of the Peyara Bain tree is used in aeration and seeds are used as anti ache agent.
11.	Math garan	Ceriops Tagal	Stem bark	Skin diseases	Juice from the stem bark of the Math garan tree is used to stop haemorrhage and it is useful to cure eczemas disease.
12.	Tara	Aegialitis Rotundifol	Leaf	Pain	Leaf decoction of the Tara tree helps to remove the pain. So it is used as anti ache agent and one type of salt is prepared from it.
13.	Banjui	Clerodendrum Inerme	Leaf	Bubo disease.	Leaf decoction of the Banjui tree is used to cure fever and leaf dust is also used to cure bubo disease.
14.	Chhagal kuri	Ipomoea Pescaprae Sweet	Leaf	Stomach infection	Leaf decoction of the Chhagal kuri tree is useful to cure arthritis and help to cure stomach infection.
15.	Shukhdarsan	Crinium Defixumker	Leaf	Ulcer and Blisters.	Leaf decoction of the Shukh darshan tree is used in removing of ears ulcer and blisters.
16.	Banlebu	Atalanta Correa	Fruit	Arthritis	Fruit oil from the Banlebu is helpful in curing arthritis.
17.	Kau	Tylophora Coarctata	Root	Foot Pain	Root is used as remedy for foot pain.
18.	Kakra	Bruguiera Gymnorrhiza	Stem bark	Diarrhea and Dysentery.	Stem bark of the Kakra tree is used to cure diarrhoea and dysentery.
19.	Golpata	Nypa Fruticauis	Fruit	Stomach infection	Juice from the Gol fruit is used as a digestive agent and it is used to cure stomach infection.
20.	Sundari	Heritiera Fomes	Leaf	Haemorrhage	Leaf decoction of the Sundari tree is used to stop haemorrhage.
21.	Khalshe	Aegiceras Corniculatum	Stem bark	Vomiting and Dehydration	Stem bark of the Khalshe tree is used to stop vomiting and dehydration.
22.	Gat Garan	Ceriops Tagal	Stem bark	Injury infection.	Chewing Stem bark of the Gat Garan tree is used to cure injury infection.
23.	Garan	Ceriops Decandra	Leaf	Hemorrhage	Leaf decoction of the Garan tree is used to stop haemorrhage.
24.	Gemo		Glutinous	Injury infection	Glutinous of the Gemo tree is help to cure injury infection.
25.	Dhudul	Xylocarpus Granatum Koen	Seeds	Dehydration	Dry seeds from fruit of the Dudul tree help to stop dehydration.
26.	Hargos	Acanthus Llicitolius	Roots	Pain	Roots of the Hargos tree are used to remove the pain of <u>kain</u> fish baiting infection.

The traditional knowledge holders use the above mentioned medicinal plants depending upon their belief and knowledge acquired by generation after generation. Though the practice, use and application of the above mentioned medicinal plants are not supported by the scientific knowledge of modern treatment, they are socially accepted on the basis of this use and result in the daily lives of the local people.

### **APPROACHES NEEDED FOR PROTECTION OF FOLK MEDICINE**

Recently the uses of folk medicines are gradually decreasing in TKH of Sundarban. Today, they buy the medicine from public medical store or government health centre. They do not want to use folk medicine due to lack of traditional knowledge or belief and interdiction of forest department. In this situation some approaches should be introduced for protection of folk medicine. Some important points are given below:

- To ensure to give right to the medicine man to continue this practice on mangrove plants.
- Both the governments (State & Central) should provide financial and legal support to promote the sustainable role of folk medicine in primary health care.
- Both the governments should take responsibility for sustainable supply of mangrove plants.
- Establishment of botanical garden is necessary for the preservation and protection of traditional medicinal herbs.
- Local administration should take charge for social protection of local medicine men/women from any field of unwanted hazard.
- The government should take notice of the fact that any outsider, may be a person or a company, should not either misuse or deprive the medicine man of their right on using the medicinal plant. The government, if it may deem it fit, can give the medicine man the copyright of using the plants.

These types of initiative will enable the development of folk medicine as well as traditional knowledge study. Lots of poor TKH can be saved from huge economical pressure because imported medicines are very expensive.

### **CONCLUSIONS**

I conclude that Sundarban mangrove forest is the store house of ethno medicinal herb. Once upon a time all the resource collectors compulsorily used these medicines during the resource collection period. In this situation they have no way of alternative treatments. Recently the use of folk medicine is decreasing in our society as well as among the local people of Sundarban due to lack of knowledge and imported medicines. Generally TKH go to forest for resource collection. Then they carry different type of popular medicines which they buy from local medical store. They do not want to use herbal medicine due to lack of knowledge and non-availability. They get medicine easily and cheaply from medical store. There are very few people left today who have faith on this traditional medical treatment. I think it is very difficult in the changing scenario to protect this traditional medical treatment in future. If positive approach is not taken immediately then this tradition will dissolve forever in near future.

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