



KANI TRIBES' KNOWLEDGE ABOUT INDIGENOUS MEDICINAL PLANTS IN THE POTHIGAI HILLS OF TAMILNADU

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Abstract

All over the world the hills are inhabited by tribes. Nestled in the tropical forests located mainly in the southernmost part of the Western Ghats, India, inhabit an indigenous Kani tribe traditionally nomadic. They are the original inhabitants residing in the dense forest from time immemorial. They are the one of the oldest surviving hunter-gatherer tribes in the world. The indigenous Kani tribes in the Pothigai Hills in Tamilnadu and their living environment are enriched with indigenous knowledge resources. These tribes have a rooted traditional and indigenous knowledge about medicinal plants. Yet, all their knowledge is gradually disappearing due to many reasons. This study has great significance in the collection of that knowledge, preparation of recorded data and conservation of that information for the use of future generation. Since their knowledge system is embedded, collective and diversified the ownership, protection and management of these areas are complicated. The collection of information, classification, copyright, intellectual property rights, the politics involved etc are the other problems involved. So far these resources are not yet systematically documented and scientifically analyzed. Hence this study aims to overcome the above said problems.

Key words: Kani Tribes, Medicinal plants, Indigenous Knowledge, Western Ghats

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Introduction

Nestled in the tropical forests located mainly in the southern most part of the Western Ghats, India, inhabited an indigenous Kani Tribe, traditionally nomadic had a rich tradition of indigenous knowledge resources. At present, there are five Kani settlements in the Kalakkad Mundanthurai Tiger Reserve (KMTR) areas of Pothigai Hills in Tamilnadu. This region falls within one of the eighteen designated hot spots of the world, treasuring some of the least disturbed forests exceptionally rich in biological resources and endemism. Servalar Kani settlement is the chosen study area forms part of KMTR comes under the jurisdiction of the Tamilnadu Forest Department.

For investigating the indigenous knowledge about medicinal plants among the Kani people the anthropological and historical works form part of this study. Extensive field survey has been undertaken to study their indigenous knowledge resources about medicinal plants. Field research data and narratives among the Kani people are increasingly used by the researcher for the inductive methodological approach in research.

Indigenous Knowledge

The term “Indigenous Knowledge” (IK), “Traditional Knowledge” (TK) and “Local Knowledge” (LK) refer to knowledge system embedded in the cultural traditions of the regional, indigenous or local communities. It is the unique local traditional wisdom in a society or culture passed from generation to generation.

The term Indigenous Knowledge (IK), is used to describe the knowledge systems developed by a community as opposed to the scientific knowledge that is generally referred to as ‘modern’ knowledge. India has a glorious tradition of the art and science of healing. The origin of Indian medicine is shrouded in ‘myths’ and ‘inspired history’. Our ancient literatures have references of plants reputed to cure difficult and incurable diseases. The Kani tribes have a rich wisdom embedded in their cultural traditions passed from generation to generation. Their knowledge about medicinal plants is worth mentioning.

Knowledge about medicinal plants

The forest where the Kani tribes are living is rich in medicinal plants. Rare varieties of plants enrich this forest resource. The Kani tribes have an extremely rich knowledge about the use of the biological resources around them. They have vast knowledge about medicinal plants. They have their own medicine men known as “Pilathies” in their area and they can identify the herbal plants and their significances. These tribal physicians are the exclusive holders of the traditional medical knowledge of the tribe. According to Kani tribal customs, only the Plathies have the right to transfer and disseminate their traditional medical knowledge. The use of the traditional knowledge for herbal medicines among the Kani tribes inhabiting the forests of the Western Ghats region is quite rich. The herbal lore that this community possesses regarding the large number of wild plants in the region has helped them survive for generations.

Kani Tribes' Knowledge about Indigenous Medicinal plants in the Pothigai Hills of Tamilnadu

All the medicinal plants in the forests of the Western Ghats region are known to the public. Yet the knowledge of preparing the medicines is exclusively with the Kani tribes. They have the inherited knowledge. All the members in family come to know since they involve in the preparation like collecting, drying, grinding and mixing the herbs.

The Kani tribes have vast knowledge about traditional medicine for various diseases. Yet the knowledge about indigenous medicine is on the way to extinction because of the negligence and the absence of documentation. Interactions with the Kani people reveal lots of information. Therefore, this study has been planned to document the medicinal plants used by Kani tribes of Pothigai hills to cure various diseases. The study about medicinal plants was conducted using a questionnaire about tribal medicine and their uses. The medicinal plants were collected and identified.

<i>Medicinal plant's name</i>	<i>Botanical name</i>	<i>Uses</i>	<i>Kani peoples' believes</i>
<i>Keerikkizhangu</i>	<i>Anaphyllum Beddomei</i> (Araceae)	antidote for snake venom	this plant has the blessing of God and people who are going to collect this plant must have a pure mind
<i>Kiriyathu or Nilavepu</i>	<i>Andrographis paniculata</i> Nees (Acanthaceae)	treatment of cough and fever	
<i>Kuravan Kanda or Kuttila vayana</i>	<i>Apama siliquosa</i> Lamk (Aristolochiaceae)	treatment of stomach ache, chest pain, and some skin disorders	
<i>Parayilpandam</i>	<i>Ceropegia spiralis</i> (Asclepiadaceae)	blood purification and syphilis	healing power of <i>Ceropegia spiralis</i> would be rendered ineffective if its healing properties are divulged
<i>Vellamundan</i>	<i>Chasalia curviflora</i> Thw. (Rubiaceae)	treatment of jaundice	three times more effective than the commonly used medicinal plant, <i>Keezhanelli</i> (<i>Phyllanthus</i>

Kani Tribes' Knowledge about Indigenous Medicinal plants in the Pothigai Hills of Tamilnadu

			<i>fraternus</i>).
Tubers	<i>Curculigo orchioids</i> Gaertn. (Amaryllidaceae)	induce lactation in nursing mothers	to make this medicine more effective, it should be prepared only by the patient
Padakathalli, Pillathali and Karppakavalli	<i>Cyclea peltata</i> Hook.f. &Thoms. (Menispermaceae)	treatment of diarrhoea, wounds, certain skin disorders, smallpox and stomach ache	only one person should pick the tuber at a time
Muyal chevian	<i>Emilia sonchifolia</i> DC. (Asteraceae)	fast healing of wounds and chest pain	
Chittirapala	<i>Euphorbia hirta</i> Linn. (Euphorbiaceae)	treatment of urinary problem and skin diseases, diabetes, fever, cough and asthma	
Erumanakku	<i>Ficus hispida</i> Linn. (Moraceae)	treatment of leprosy, blood purification and for inducing lactation, skin disease called, <i>srwitha</i> (leucoderma)	
Menthonni or Karalvatti and kalihari	<i>Gloriosa superba</i> Linn. (Liliaceae)	treatment of leprosy, parasitical infections of the skin, piles, and colic. The basal portion is made into paste and applied on the head of women undergoing labour. Soon after the parturition, the paste made of the distal portion, called <i>keezthonni</i> of the same tuber, is applied on the head for vaginal contraction. It is also used as antidote against some poisons	the medicinal use of this plant must be secret.

Leaf juice of the plant, <i>nekku</i>	<i>Leea sambucina</i> Willd. (Vitaceae)	cures dysentery with blood discharge	spreading information about the plant leads to the destruction of its medicinal effect
Juice extract of its leaf <i>sheath</i>	<i>Musa paradisiaca</i> Linn. (Musaceae)	treatment for snake venom	
<i>Chilathi pacha</i>	<i>Ruellia patula</i> Jacq. (Acanthaceae)	<i>Kaduva chilanthi</i> (Tiger spider).	the <i>Kaduva Chilanthis</i> are the incarnations of evil spirits and considered as the representatives of devil.
<i>Marachada or Valank</i>	<i>Sansevieria roxburghiana</i> Schult.f. (Liliaceae)	therapy for ear pain	
<i>Arogyapacha</i>	<i>Trichopus zeylanicus</i> ssp Travancorieus	Anti-stress and immune-stimulating properties, relieves fatigue and control tumors	

Some of the medicinal plants' common names and their uses are mentioned below. Kani people use them for some specific ailments.

Oodavalli

When the stem of the creeper *oodavalli* is cut down water like fluid will ooze out. It is the best cure for jaundice.

Kerrakkodi

The grinded paste of a creeper called *kerrakkodi* and it is the best cure for the poisonous insect's bites like snakes. After taking this medicine, particular persons in their settlement tell some mantras holding *tulsi* leaves or some clothes on their hand.

Kiriyath

Tulsi leaves, tiny pepper, dried ginger, neem leaves and *kiriyath* (bitter taste) are boiled with jaggary. The essence of this will cure head ache and plum in chest.

Kayithavetti

They cut the top portion of the plant *kayithavetti* and eat the tender portion of that plant.

Siriya nanghai, Periya nanghai

Siriya nanghai, *periya nanghai* are very good medicinal plants. *Siriya nanghai* prevents dengue fever. It is also called as "*nilavembu*."

Kadukkai

If the children's tongue is white in colour, they apply the paste of *kadukkai* to cure it.

Aluverae

Aluverae reduces body heat, when the fleshy gel like substance is applied on the top of the head.

Tulsi and pepper

They prepare and take herbal medicinal juice out of *tulsi* leaves, pepper etc. to prevent seasonal sickness.

Mango and Vengai

The skin juice taken from the barks of the mango trees and vengai tree will arrest diarrhea.

Country Bananas (natuvalai)

Country bananas prevent jaundice. The forest trees in this region have broad leaves, which are very much useful for photosynthesis.

Mysterious Plants

Rare varieties of animals and plants enrich the forest resources. Many strange plants are available in this forest. It has many mysterious trees which shine at night and even some plant's green leaves burn like dried leaves when lit fire. When they eat small unripe fruits of a plant and they instantly cure their leg pain. Plants are available for controlling appetite.

Medicine for Vitiligo

Kani Pilathies are known for the treatment of jaundice. Pichandi, the medicine man brings one medicinal plant from Himalayas. This plant is the best cure for the disease for vitiligo.

Medicine for AIDS, Cancer, Infertility

Pichandi gives therapy to the patients affected due to Acquired Immune Deficiency Syndrome (AIDS), cancer, infertility etc., He travels often to Mumbai, Pondicherry and other places to treat AIDS patients. AIDS patients are coming to his house for treatment. He says that the medicinal treatment he gives for cancer destroys all the cancer cells.

Medicine for other ailments

He also treats patients suffer due to diabetes, body pain, kidney failure, and blood pressure etc., He instructs that if there is burning sensation below feet then sugar level is more in blood. He insists the patients to come before 10 a.m. to his house to identify the disease by checking their pulse rate.

He has medicines for dengue fever, snake bite etc. While taking some medicines he advises to avoid the food prepared with salt, tamarind, tomato, fish, dry fish etc. He also speaks about tribal medicines and their values among the educationalists, scholars, researchers and students.

The fresh herbs contain a variety of nutritive and therapeutic constituents. These include volatile oils, tannins, terpenoids, saponins, anthraquinones, flavonoids and alkaloids. The content of drug in a plant is influenced by locality, time of collection, stage of growth and the seasons, etc. Anyhow the role of indigenous knowledge in the realm of medicinal plants is even more obvious

than the knowledge about the characteristics of a particular plant and its properties as a healing substance.

One can very well understand that the Kani tribes have a well-developed system of traditional medicine. They know a lot of rare medicinal plants and their applications. The use of technology has been acquired through a few thousand years of experience, trial and error and incremental refinement. They have some beliefs about diseases and medicinal treatments. They do not reveal the knowledge of medicinal plants to others because of the fear that, if they do so, the healing power of the plants may be lost. Although the beliefs among them are considered as superstitions, if analysed carefully we could see that, most of these beliefs are for the protection of medicinal plants.

As a result of this, the Kani community has developed the knowledge of the plants, animals and mineral to a mature and scientifically sound technology which exists in several traditions like Ayurveda and Siddha. It stands to reason that the technology pertaining to the medicinal uses of plants and animals in Pothigai hills belongs to the Kani indigenous community and must be considered their property.

Knowledge about Health Care

The Kani tribes have a rich tradition of using wild plants found in their region for health reasons. The plant “*arogyapacha*” has immune-stimulating properties. It also boosts stamina, relieves fatigue and activates the body’s natural defenses and cellular immune system. The *Arogyapacha* plant from which the *Jevaani* drug was developed and subsequently patented by the Indian Research Institute called, Jawaharlal Nehru Tropical Botanic Garden and Research Institute (JNTBGRI).

Kani tribes munch black fruits of some plants when their energy got exhausted while walking inside forest area. When they eat they resume full of energy and vitality. They believe that the leaves of the plant called *Samiyar* gives instant energy while they eat.

The ladies while they conceive babies, they walk a lot. And so they deliver babies normally. Most of them deliver babies in their houses. Yet, in recent days they go to Vickramasingapuram hospital and come with new born babies after normal delivery.

Five *Ganthari* Chillies, garlic, turmeric and one small piece of dried, brown, skin removed, soaked coconut are grinded together and cooked in clay utensils. The ladies after delivering babies take hot water bath, eat food for half stomach and then drink this medicine and eat the remaining food and go for sleep. They continue this process for nine days. On the tenth day after delivery, they bath and wash their clothes in the river. The new born babies are fed with one tea spoon of *Udumbu* oil. They believe that it will prevent the babies from all kind of diseases.

After delivery the young mothers eat *Sirukilanku* with burnt grinded coconut. They are restricted from eating fish, meat, egg and jack fruit for two months. They are allowed to eat the meat of *Mizha* and black monkey after two months only.

Girl children, who attain puberty for the first time, are given with the eggs of the country hen and castor oil. No additional nutritious food is given to them. During menstrual time they will not go inside the forest for nine days.

When menstruation is about to end at the time menopause many ailments like knee pain, neck pain, back pain, hip pain are likely to occur. Kani medicine man Pitchandi says that it is not necessary to consult doctor. Menopause is a natural process in women's body. Due to hormonal imbalance changes occur and women need not worry about it. He advises to ignore all ailments during this time.

Innovative Health Device

Pitchandi, the medicine man has one innovative device for health treatment. He constructs a small cabin with the help of timber. He has pasted the walls with straw and cow dung. This cabin is built little above the ground. He makes clay stove inside the nearby room. He puts more than twenty five medicinal herbs inside a mud pot and added water to it. He then keeps it on the stove and closes the pot tightly. Then the pot is heated to the maximum. The vapour mixed with medicinal flavour comes out of it is passed to the cabin through the pipes. Those who want to take refreshments are allowed inside the cabin and the door is closed. After fifteen minutes the person comes out with full refreshment. This treatment gives very good health impact on those who undergoes.

Pichandi, the medicine man says that the dried and powered *nellikani* (amla) is good for health when soaked in honey. Eating honey is good for health and it arrests appetite. Kani lady Daisy told that the boiled water of *nellikani* as well as the soup of animal bones reduce the body weight. It is said that *sikri* mixed in coffee powder increases *piththam*. Black tea without sugar and milk is good for the promotion of health. Eating jaggary instead of white sugar is good for health. Eating curd is also considered good for health. It is difficult to identify obese Kani ladies and Kani men with big bellies.

They always keep their houses and surroundings clean. They are not interested in going to hospitals when they are sick. It is their belief that if they take tablets and injections that may lead to further deceases. They vacate and shift their settlement area if any contagious disease like chicken pox spreads in their area. They consider disease as demons.

Conservation of Indigenous Knowledge

The primitive men enjoyed unfettered freedom as children of the forest. Knowledge they gained is transmitted to next generation through their followers. India has a glorious tradition of the art of healing. Yet the organised medicine, Ayurveda emerged from folk medicine. Our ancient literature has references of medicinal plants that cure difficult and incurable diseases. In addition, innumerable medicinal plants are believed to be in existence in the tribal knowledge, practices and tradition.

Even though these beliefs have certain advantages, a lot of valuable knowledge has been lost in due course of time. Another problem with tribal medicine is the absence of recorded data. And

also they have some superstitious beliefs that do not reveal the medicinal secrets to others. Thus, a particular medicinal treatment is lost with the death of the knowledge holder. Abundant ancient knowledge has been lost by the absence of supportive literature. A major reason for this is the illiteracy of the tribes. Further, a large number of medicinal plants are being threatened due to deforestation and urbanisation.

And also the indigenous communities often do not have strong tradition of ownership over knowledge that resembles the modern forms of private ownership. Indigenous societies are under threat and their intellectual heritage is in danger of being destroyed or stolen.

The homogenization of cultures is one effect of globalization, and while it brings with it many benefits, it also brings problems. One of them is the way in which it subsumes the knowledge, traditions and identities of the original inhabitants of regions. In addition the indigenous knowledge systems have been marginalized in Eurocentric institutions. As well the non-tribes want to exploit the knowledge and wealth of the tribes.

In these circumstances, ethno-botanical and ethno-medicinal studies have great significance in the collection of traditional knowledge, preparation of recorded data and in the conservation of endangered medicinal plant species. With the help of new technologies, the data could be scientifically proved, so that the scientific world will accept the traditional systems. Nature is providing what we need and our task is to save nature for prosperity.

New bio-resources are becoming a highly sought-after raw material in the era of biotechnology, we must create a framework for the just and proper use and appropriate payment for indigenous technology. The advocates for Indigenous people are seeking to empower Indigenous peoples, their knowledge, their languages, and to build ethical spaces for shared dialogues.

The specific value of indigenous knowledge is searching for a way to sustainable development for mankind. The indigenous communities often do not have strong tradition of ownership over knowledge. Hence that knowledge should be collected, preserved, analysed and applied carefully by the present day generation without altering its basic values.

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