

## **Industrialization: A Threat to the Indigenous Knowledge of Ethno-medicine**

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### ***Abstract***

*Even in the era of globalization and heavy industrialization in the sample area still the indigenous people have been depending on the traditional healthcare practices. There are different kinds of traditional health practitioners or traditional healers and each has different role in the same habitation. They are locally known by different names, viz. Baida, Gunia, DhaiMaa, etc. Even the term is different from tribe to tribe and sub-caste to sub-caste. For example the Oraon refers to them as Baidae, Gunia and Dagrín respectively. Each practitioner has his/her expertise in some specific field of health care. They adopt different techniques in providing health care facilities to the community. The techniques of treatment followed by these practitioners depend on their own knowledge, nature of the illness of the patient and the patient's social and psychological environment. The Baida takes a nominal price because of the procurement and processing of herbal medicine. The other two do not have expectation in return of their service; normally they are given a customary payment. The indigenous knowledge on ethno-medicine has been losing its ground in the new industrial setting. Information are collected among the Oraon and Mirdha of Maa Samaleswari Rehabilitation Colony.*

*Against the backdrop the paper makes an humble attempt to highlight the ethno-medicinal knowledge of Oraon and Mirdha .*

**Key Words-** *Industrialization, Indigenous, Knowledge, Ethno-medicine*

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### **1. Introduction**

The term indigenous was first coined by the United Nation. The Draft Declaration on the Rights of Indigenous peoples of the United Nations states that; “Indigenous peoples have the collective and individual right to maintain and develop their distinct identities and other characteristics, including the right to recognize themselves as indigenous and to be recognized as such (article-8) and Indigenous peoples have the collective right to determine their own citizenship in accordance with their customs and traditions. The citizenship of Indigenous people does not harm the right of individuals to obtain citizenship of the states in which they inhabit (article-32)” (UNDIP; 2007). According to the Working definition of the term "Indigenous Peoples" by the **United Nations** Special Rapporteur **Mr. Martínez Cobo** (primarily applicable to the Indigenous Peoples of the Americas, Australia and the Pacific); “Indigenous communities or peoples are those, having a historical and chronological permanence in a nation or state from pre-invasion and pre-colonial societies which is developed a sense of deep attachment with the

territories and considered themselves distinct from the other sectors of societies. Behera (2013:172) refers indigenous communities as having close attachment to ancestral territory and natural resources and use a dialect different from state/national language. The indigenous communities learn the knowledge of adaptation from the deep sense of attachment with the habitation for survival.

### **Indigenous Knowledge**

The indigenous Knowledge can be broadly defined as the knowledge that an indigenous community accumulates over generations of living in a particular environment and ecological setting. The indigenous communities have always generated, refined and passed the knowledge from one generation to next orally. This indigenous knowledge is under threat due to forced displacement from their habitation. It is practical knowledge acquired through experiences. It reflects the ideas and experiences of local people for the adaptation in particular ecological setting. It develops over a time and continues to develop. The indigenous knowledge is used for the sustaining of a community and community life within the ecological setting. The indigenous knowledge of ethno-medicine includes the mental inventories of local biological resources of indigenous communities such as animal breeds, and local plant, crop and tree species etc. It includes such information as trees and plants that grow well together, and indicator plants, such as plants that show the soil salinity or that are known to flower at the beginning of the rains. It includes practices of agricultural activities according to circle of season, technologies of seed processing, seed treatment, storing of grain and other forest products for longer period, using of natural anti-insects or anti-bacterial herbs in order to keep safe the storing materials and tools used for planting and harvesting. Indigenous knowledge also encompasses belief systems that play an important role in a people's live and livelihood, health care practices using plant and animals species and protecting the said resources and replenishing the old with a new and developed one. Traditional knowledge is dynamic by nature and includes experimentation in the integration of new plant or tree species into existing farming systems or a traditional healer's tests of new plant medicines. The term “indigenous” used in describing this knowledge does not imply that is old or non-technical by nature, rather it indicates the knowledge acquired from the experiences of community members or medicine man. It is traditional because it is created in a manner that reflects the culture and traditions of the communities, therefore not relating to the nature of the knowledge itself, but to the way in which that knowledge is created, preserved and disseminated (World Intellectual Property Organization: 2002). Thus, traditional knowledge is collective by nature and is often considered the property of the entire community and not belonging to any single individual within the community. It is transmitted through specific cultural and traditional information exchange mechanisms, for example, maintained and transmitted orally through elders or specialists (breeders, healers, etc.), and often to only a select few people within a community.

### **Indigenous Knowledge on Ethno-medicine**

The knowledge use of specific plants for medicinal purposes (often referred to as “ethno medicine”) is an important component of indigenous knowledge on ethno-medicine. The

spiritual dimension of indigenous people plays the central role in this system of knowledge. It emerges from the close relationship with the habitation and natural environment. In the context of indigenous belief system, spirituality is understood as the recognition that everything in the universe is alive and should be respected. The belief system further emphasises on an understanding of the interdependence of all living and non-living beings in the world. Indigenous knowledge is characterized as cumulative, holistic, and practice-oriented; that it is not fragmented into categories or abstractions. Indigenous knowledge is expressed and transmitted through language (oral history, stories, songs, narratives, place names), social organization, everyday and ceremonial practices, observation, values, institutions, and laws. The intergenerational accumulation and communication of knowledge is central in indigenous systems of knowing. Indigenous knowledge is mainly acquired by long-term direct observation and experience (Daes: 1994).

## **2. Review of Literature**

Pati (2011) refers at present most of the people prefer to herbal-medicine. Looking to the demand of herbal medicine the scientists have taken so much of interest on the scientific investigations on in many countries in the world. The herbal medicinal plants also play an important role in treating and preventing many diseases. So research on the herbal medicinal plants have been initiated in many countries because of their contribution to healthcare. Ignacimuthu (2006) states herbal medicines have good values in treating many diseases including infectious diseases, control of blood pressure hypertension, etc. Blake (2004) indicates now days the plants medicine have been widely used in all parts of the globe. At present the people have understood the importance of plants medicine and its natural remedies. Gradually the doctors and the scientist in the world have been recognizing the knowledge of the use of plants medicine and validating in the era of modernity. The complete remedies through the plants medicine in curing the different diseases are used rather than just mask the symptoms.

The use of herbal medicines in health care practices is considered as earliest forms of remedy practices among the indigenous people. The traditional health care practices using herbal medicines was prevalent among the most of the communities in the different corner of the world prior to the advent of modern allopathic medicine. These practices have been continuing among most of the indigenous communities inhabiting in the remote part and it is considered as a great traditional knowledge of the community (Mukharjee and Wahil; 2006).

Different varieties of plants medicines used in health care practices have wide range of composition. Those compositions have the ability to turn food materials, minerals etc. into new cells, energy and waste products by means of chemicals process. The varieties of oils drawing from the seeds of plants medicine are rich in therapeutic properties, which are also used in treating varieties of chronic as well as infectious diseases (Ayyanar, Sankarasivaraman and Ignacimuthu; 2010). The most advantage therapeutic uses of plants medicine are for the different type of ailments are; it is easy availability of the plants in and around where the indigenous community lives; safety without any side effect or risk; low cost effective, anybody

can spent easily. Moreover in the era of heavy industrialization through the process of acquisition of forest and village forest land in order to establish mega industries and heavy attention of pharmaceutical companies on the herbal medicinal plants the valuable indigenous knowledge of ethno-medicine and the sustainability of the plants resources are kept aside (Bosco and Aurumugan; 2012).

Soejarto, Gyllenhaal, Riley and Zhang (2009) conduct ethno-botany studies among the different indigenous communities. The indigenous communities acquire the knowledge of plants medicines with the co-habitation in a natural setting. There is no written record of that knowledge. It is acquired from the deep association with the habitation through ages. It passes down orally from one generation to the next. They have also acquired the knowledge to conserve the medicinal plant species in their traditional patterns and uses sustainably.

The modern allopathic medicines are too expensive with alarming site effect for which at present the people are putting faiths and much attention on the ethno medicine. The ethno-medicine appears as an alternative of modern medicine because of its gaining ground among the people. So it is necessary in the part of government as well as the people to explore the knowledge of ethno-medicinal practices of the communities or medicine man who acquire the knowledge living closely and harmoniously with the eco-system and to document those (Pandey and Pandey; 2010).

The Sonowal Kachari is one among the tribal community of Assam. The person believes that there are certain diseases caused due to malevolent super natural forces. These diseases can be cured only in pleasing the malevolent supernatural forces through the process of prayer and giving some sacrifices. With the prayer and sacrifices they use certain plants medicines available in their habitation. Particularly the age old persons of the community are well aware about those plants. The village medicine man who is locally called as 'Bez' also has good knowledge on plants medicine and their uses (Das, Barua and Das; 2008).

Subanen is an indigenous community Zamboanga Peninsula. The main source of livelihood of this community is agriculture and agricultural labour. They practice varieties of cultivations including paddy. Varieties of food bearing and medicinal plant are found in their corn field. In their local parlance the medicinal plants and herbs are called as *Bulung*. They believe that each and every plant has a spirit like human being. So the plants should be respected and protected. They state that the indigenous knowledge of ethno-medicine and the uses of plants come through the dream which is reflected in the characteristics in regards to concerned diseases (Bellen; 2008). But at present the availability of those plants are gradually declining. The Subanens people are experiencing the great loss of the ethno-medicine in and around their habitation. As the knowledge system comes from deep sense of relation with the ecological setting, it is also deeply associated with the availability of the plant in their habitation. The loss of medicinal plants leads to loss of ethno-medicinal knowledge of indigenous people. The hand counting of medicine men of Subanen communities admitted that their knowledge of medicinal plants is much lesser than previous generation. It is gradually declining day by day. The environmental degradation due to the process of heavy industrialization is the main cause of the

loss of medicinal plants as well as the gradual erosion of ethno-medicinal knowledge. The loss of indigenous knowledge system, loss of different plants and animals are the compound loss of culture and cultural practices of indigenous people. Due to dual exploration of heavy industrialization following with urbanization the indigenous societies have been changing day by day. In this changing process the upcoming generation of Subanen are mainstreaming. The assimilation of upcoming generation with mainstream population is a great threat to the indigenous culture and society. The oral culture, tradition and the knowledge system which was passing from one generation to the next will no longer be transferred. The knowledge based on ethno-medicine must be document prior to disappear from the earth forever (Suminguit; 2005).

### **3. Methodology**

The study is conducted in the Maa Samaleswari Rehabilitation Colony of Vedanta Aluminum of Jharsuguda district. The colony situated approximately 10 km. from the district head quarter, Jharsuguda. The total population of the colony comprises of 148 households. Out of total Households, 77 belong to STs, 18 belong to SCs, 52 belong to OBC and the remaining single household belongs to general caste. The inhabitants of the colony are from *Oram*, *Mirdha*, *Gauda*, *Kisan* and *Chamar* communities. The displaced people of Dumdumi Oroan pada, Baghiamal and Kureibaga are resettled in this colony by the Vedanta Aluminum. The plant Vedanta Aluminum is situated between 21°46' to 21°48' north latitude and 84°01' to 84°03' East longitude. The State high way passes around 4 kilometers from the Plant site. *Jharsuguda* is the nearest railway station which is situated around 8 kilometers and *Paradeep* is the nearest port which is situated around 400 kilometers away from the Vedanta Aluminium Plant. *Katikela* R.F. (0.1 kilometre in east), *Ghichamura* R.F (2-3 kilometre south-east and *Jamtalia* R.F./*Pitamal* P.F.(within 10 kilometers are protected forest areas of the site. The river *Veden* passes around 0.5 kilometre from the plant site. The *Hirakud* reservoir and river *Ib* are situated 7.4 and 7.6 kilometre from the plant site respectively. The data are collected through the observation and unstructured interview schedule from households' members, and medicine man of Oroan and Mirdha community. Focused group discussions are conducted among women of the rehabilitation colony. The paper tries to investigate the dependencies of indigenous people on the ethno-medicine for different health problems in the post displacement era. The World Health Organization (WHO) has modified the concept of health and stated that health and diseases are multi-factorial entity depends on physical, mental social and environmental status of an individual or a group (WHO; 1992). After the acquisition of land due the establishment of Vedanta Aluminum the ethno-medicinal plants have disappeared in and around the industries and going to disappear completely due to the extension of the industries. The disappearance of ethno-medicinal plants and herbs is a great threat to the health practices of indigenous people as well as indigenous knowledge system.

#### 4. Result and Discussion

The indigenous people of sample area had different kinds of treatment for the various types of diseases in pre-industrial era. Still the people have been practising some of them which are available in their vicinity. They use different parts of various plants as medicine for treatment and sometime as preventives. There is a medicine man (herbal specialist) among the Oraon like the other indigenous communities. He has much knowledge on medicinal value of plants and its uses. He has acquired the knowledge from their ancestor orally. It has been observed from the sample area that except the medicine man most of cases the elderly persons also prescribe different plants medicine for different diseases. Some of them are more useful plants. The use of various plant for the treatment of different diseases and the doses are given in the table No. 1. It also indicates the different parts of the plant which are used for different diseases.

Table No.4.1: Indigenous Knowledge of Medicine for Various Ailments:

Local Name	Botanical Name	Name of Diseases	Particular part	Mode of Application and Doses
<i>Bhui Neem</i>	<i>Andrographis paniculata</i>	Malaria	Leaf, whole plant	Whole plant is grinded by putting some water and tablet is prepared adding little sugar. Twice daily for 1-2 days
<i>Satabari</i>	<i>Asparagus racemosus</i>	Leucorrhoea	Tuber	Tuber is soaked in the boiled water at fortnight and consumes it in the morning with tea. Once daily for five days.
<i>Satabari</i>	<i>Asparagous recemosus</i>	Asthma	Tuber	Juice is prepared by grinding the tuber with water. One glass of juice is taken in empty stomach. Once daily for 1 month to 40 days before taking food only in the morning.
<i>Neem</i>	<i>Azadirachta indica</i>	General fever	Bark	The bark of old tree is burnt and makes a tablet and takes it with milk twice daily for 1-2 days orally after taking food.
<i>Neem</i>	<i>Azadirachta indica</i>	Scabies	Leaf	Leaf extract mixed with water is taken orally to kill the worms in the blood. Bitterness kills the disease. It takes in empty stomach.
<i>Ban haldi</i>	<i>Curcuma longa</i>	Jaundice	Flower	Half cup of juice is prepared by grinding the flower. The paste of glower is also massaged over body

				before taking bath. Twice daily only in the morning and evening.
<i>Harida, Ainla and Mahua</i>	Terminalia chebula, Amblica Officinalis & Madhuca indica	Caugh & cold	Fruits, seeds of Mahua	The fruit of harida plant is roasted in fire and serve to the patient. The powder of ainla is taken after taking food The oil of Mahua Seed is applied over chest.
<i>Hadjor</i>	<i>Cissus quadrangularis</i>	Fracture	Stem	Paste of stem is applied and 1 to ½ cup paste is taken orally with one glass of water until relief
<i>Kamal pokhra</i>	<i>Nelumbo nucifera</i>	Epilepsy	Seed	Prepare paste with grinding the seed and mixed up with water Half glass juice is taken with water orally once after every attack.
<i>Agara</i>	<i>Argemone mexicana</i>	Caugh and cold	Flower	Prepare juice grinding with flower and half glass of juice is taken with water orally after taking food in the morning. Once daily for 40 days.
<i>Mainphal</i>	<i>Radio duteous</i>	Headache	Tuber	Tuber is grinded with water and applied on forehead. Twice a day.
<i>Shankarjata</i>	<i>Uraria picto</i>	Dysentery	Leaf	Fresh leaf is grinded and juice is taken with water. After every 3 hours until relief.
<i>Mutha</i>	<i>Cyperus rotundus</i>	Weakness, stomachache	Root	Dried root is grinded and tablet is prepared with jiggery. Twice daily until relief after taking food.
<i>Doodhi</i>	<i>Euphoribia thymifolia</i>	Dog bite	Whole plant	The plant is grinded to make paste and applied on the cutting part. Once immediately after bite then once daily for 2-3 days.
<i>Biba</i>	<i>Semicarpus anacardium</i>	Migraine	Seed	The paste of grinded seed is applied on the forehead.
<i>Ran wange</i>	<i>Solanum xanthocarpum</i>	Tooth decay	Fruit	Fruits put on charcoal and smoke inhaled through the fruit month. Fruit smoke irritates the worms in

				the decayed tooth & worms are spat out.
<i>Chirchira</i>	<i>Achyranthes aspera</i>	Stone and Scorpion bite	Root	Juice is prepared with water and taken orally. Once daily before taking any food until relief.
<i>Chirchira</i>	<i>Achyranthese aspera</i>	Dysentery	Root	The root is grinded with water and a pinch of salt is added and juice is taken orally in every 3hrs.
<i>Pala leaves</i>	<i>Tridax procubens</i>	Cuts	Leaf	Leaf is grinded with some drops of water and applied on the cutting part.
<i>Karvanda</i>	<i>Carrisaa carandis</i>	Snake bite	Root	Root is chewed and extract swallowed to induce vomiting in order to throw out poison.
<i>Umber</i>	<i>Ficus glomerata</i>	Chicken pox	Sap	Filtered latex from roots which symbolizes sperms of moon is given orally to the patient, who symbolizes female spirits of planets.
<i>Chapha</i>	<i>Plumeria rubra</i>	To induce sterility	Flower	Flower is taken by the fertile woman to induce sterility. They believe this tree does not bear fruits and hence the woman will not bear a child. Paste of flowers mixed with ½ cup of milk is given to the patient.
<i>Mircha (mirchi)</i>	<i>Capsicum fruiticens</i>	Evil-eye	Fruit	Five chilies are ritually revolved around patient to absorb evil effect and put in fire to be destroyed.
<i>Shid leaf</i>	<i>Bauhinia race mosa</i>	Arthritis	Leaf	Wrapped tobacco is smoked in <i>shid</i> leaf to transfer heat to painful parts of joints and remove the cold air present in there.
<i>Sagwan</i>	<i>Tectona grandis</i>	Wounds	Leaf	Ash of <i>techtona grindis</i> leaves is mixed in chicken fat oil and applied on wounds. It is believed to kill the germs.
<i>Palas</i>	<i>Butea frandosa</i>	Kidney stone	Flower	Flowers heated and tied on the belly of a patient suffering from kidney stone. This remedy dissolves the

				stone naturally.
<i>Amba</i>	Megnifera Indica	Sunstroke	Fruit	Taking the juice of green mango with black salt and sugar. Application of mango juice on head & stomach is also very useful in curing the sunstroke.
<i>Kaincha</i>	<i>Abrus precatorius</i>	Skin disease	Seed	The seed paste is useful in various skin diseases. It also causes abortion.
<i>Bach</i>	<i>Acorus calamus</i>	Wounds, cough and cold	Leaf	The leaf paste cures wounds; it is also beneficial to cure cough & cold by taking the juice of Bach leaf twice daily after taking food.
<i>Basinga</i>	<i>Anisomeles</i>	Dysentery	Leaf	Leaf is grinded with some water and kalanamak is added and is taken orally in every hour.
<i>Bul</i>	<i>Aegle marmelous</i>	Stomach disorder Sunstroke Diabetes	Ripe fruit	Ripe fruit syrup cures sun stroke and stomach disorder. New leaves cure diabetes. The leaf ash cures the wounds.
<i>Kukrone</i>	<i>Agerantum conyzoids</i>	Old allergy	Leaf	The leaf powder, black pepper and honey cures old allergy.
<i>Pandari</i>	<i>Calotropis Procera</i>	Boils	Leaf	A leaf is tied on the boil. Latex is believed to be hot in nature and hence ruptures the boils.

The table indicates the indigenous knowledge on ethno-medicine which had been collected from the ecological setting. The indigenous people particularly the female and older members of the community collect the plants from the forest and process in indigenous method. But the knowledge system is gradually withering its ground due to the non-availability of the concerned plant resources.

### **The Indigenous Knowledge on Ethno-medicine under Threat**

It has been observed from the sample area that the indigenous knowledge came under the threat due to two interrelated process such as the changing pattern of land use and adoption of new livelihood pattern by the indigenous people. The sample area has become a favourable destination for the national and overseas corporate due to the availability of natural resources such as water, land and minerals. In last two decades the corporate such as Vedanta Aluminum, Bhusan Steel & Power and Hindal Co, Adtya Birla and other sponz iron industries have drawn attention to establish of industries in the sample area. So many mega projects have provided

space in these areas. As a result of which large scale of private as well as government land have been acquired including village forest and forest land. After acquisition of land around the *Hirakud* reservoir in order to establish the industries, the cultivable, grazing forest and village forest land are shifted from traditional land using pattern to industrial establishment. This process of land using impacted the livelihood of indigenous people. The people of sample area who were dependent on agriculture and agricultural labour in pre-industrialization era became landless and jobless in post industrialization era. All the economic activities related to land and forest became halt. Other hand the acquisition of village forest and forest has lead to the losses of varieties of flora and fauna which were available in pre-land acquisition era in the sample area. After agricultural operation the people were collecting different minor forest product from village forest and forest for the consumption and selling in the weekly market to maintain their livelihood became also halt in post industrialization era. The result the indigenous communities became forced to shift the pattern of livelihood from settled agriculturist to an uncertain wage labourer under the contractors in the industries. The shifting of work pattern and non-availability of natural resources delinked the indigenous people from the land and nature. The indigenous knowledge which was coming with the cohabitation and attachment with the nature is gradually decreasing as the resources are not available in the surrounding.

The non-availability of land and resources forced indigenous people to shift their pattern of livelihood. The alienation of land and natural resources pushed indigenous people to work in the industries as wage labourer. In this process of shifting pattern of livelihood the young indigenous youth come to contact with the non-indigenous people. This work culture promoted the indigenous youth to out-migrate as part of national trend. Each year a considerable number of indigenous youth are migrating from the sample area to work at Andhrapradesh and Gujrat from the sample area, for which greater number of absentees are found in the sample villages. They come to village once or twice a year. A lot of attitudinal changes have been observed among them within the short term staying with kinsmen. In spite of taking part in the village matters as part of community they try to influence as non-indigenous people. Within the period of staying in the village they only share the way of life style where they work. In this process staying distance from the native land and relatives the indigenous knowledge which was handing down from the old generation to younger is gradually declining. On the other hand they do not have option to maintain the livelihood in the native villages. Another type of social disarticulation has been recognized in the sample area among the youths staying in villages, which is the reason of declining of indigenous knowledge system. They do not find an official job in the industries due to lack of suitable educational qualification rather they have to work as a wage labourer under contractors. After working hard an about of eight hours a day with the smoke and sound of engine they return to the home. In order to relief from the tiredness and irritation they take rest in the after taking food without sharing anything with the family or community members. Some of them take alcohol and lead life in their own way without contributing and sharing with own family and community members. These attitudinal changes create a big gap between the older and younger generation which have closed the all doors of flowing of knowledge system to the

next generation. In spite of those problems a psychological problem has been recognized among the indigenous youths.

The shifting livelihood pattern exposes the indigenous youth to contact with non-indigenous people. They come to contact with a culture which is new to them. Gradually they attract towards the non-indigenous cultural practices and start to devalue their own cultural practices. The non-indigenous cultural practices spread in the indigenous area in a great extent. It has been highly observed among female youth particularly the dressing pattern is concerned. They are attracted so much towards the fashion world of non-indigenous communities. For example; once they were using the *Harida* to wash hair and turmeric as cosmetics now their prime favourite is *shampoo* and other cosmetics of non-indigenous society. The cultural inferiority complex has been developed among the indigenous youth when they come to contact with the non-indigenous people and started to adopt the culture which is new to them. The cultural distance between old and young generation living in same habitation led to cultural lag among the indigenous people. The socio-cultural transformations among the indigenous youth due to heavy industrialization in the sample area through process of modernization have pushed the indigenous knowledge into a highly risk zone.

Like the socio-cultural transformation of indigenous youth, the over exploitation of Ayurvedic medicine companies on plants resources is also a great threat to the sustenance of indigenous knowledge. In earlier days, traditional medicines were a major source of materials and information for the development of new drugs. In the 20<sup>th</sup> century, however, new sources for pharmaceuticals led to a decline in the importance of ethno botany in drug discovery programs. However, new discoveries of potentially potent anti-cancer agents in plants (such as turmeric and taxol), as well as a rapidly growing herbal remedies market, has revived industry interest in traditional medicinal knowledge and practices. As interest towards traditional medicine is rekindled, indigenous knowledge of the cultivation and application of genetic resources is being exploited at an alarming rate. World sales of herbal medicine alone were estimated at US\$30 billion in the year 2000 (Grain and Kalpavrikash: 2002). The use of different plant and animals' species for the specific purpose are introduced by indigenous communities. They had acquired the knowledge on plant medicines, cohabiting with environment by experiencing and experimenting in their own life. Those knowledges on medicinal plants have been gaining much importance at present among both indigenous and non-indigenous communities in all over the world as ayurvedic medicine. As a result the medicinal corporate have already put their eye on the medicinal plants. In recent decade large number new companies have been set up to make ayurvedic medicine. Large number of middlemen have appointed and taken the charge of collection of plant medicines. They collect the plant species transport to the different companies. The over exploitation of natural grown plant resources are under threat to complete destruction.

## 5. Concluding Remarks

The indigenous knowledge on ethno-medicine has been rooted historically and culturally. It is age old practice of the member of indigenous communities of study area as well as the local medicinal practitioner. Particularly the practitioner usually belongs to the community and the people have strong belief and confidence on him and his treatment. The indigenous knowledge system of ethno-medicine is appropriately validated and culturally accepted by the indigenous people of sample area. The age old practice of ethno-medicine which was acquired from the cohabiting experience with ecological setting is under threat after the establishment of mega industries in this area. The establishment of heavy industries in the sample area have acquired large scale village forest as well as forest land. In this process of land acquisition varieties of flora and fauna have been buried in the earth. Somehow and somewhere it is available the younger generation not in position to recognize due to the changing socio-economic pattern. The acquisition of land has destroyed the pattern of livelihood and social organization of indigenous people. The shifting pattern of livelihood pushed the indigenous younger generation to non-indigenous cultural practices. So a big gap occurs between old and younger generation which was the only source of flowing of indigenous knowledge to the younger generation. Despite of the recognition of pharmaceutical industries regarding the plant medicines is concerned the younger generation not in position to adopt. The co modification of indigenous knowledge is also a matter of serious concern for the sustenance of indigenous knowledge system. The over exploitation of pharmaceutical company on medicinal plants is a great threat to existence of plant resources and knowledge system of indigenous people. Terms like "bio piracy" and "bio prospecting" refer to appropriating and patenting aspects of indigenous knowledge to be used in pharmaceutical and medical products without sharing the profits with the holders of this knowledge. This use of traditional knowledge has been increasingly seen as unacknowledged, insufficiently rewarded, or simply misappropriated.

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