

## **Gender dimension towards Right over Traditional Knowledge by Adivasi women of Melghat Tiger Reserve, India**

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**Abstract :-** It is being increasingly realized that women play an important role in biodiversity management and therefore, any discussion on protection of biodiversity and the associated traditional knowledge mandates a focus on the issue from the perspective of gender. At the very outset, it is important to go into the nature of women's relationship with the environment and whether it is distinct from men's. Women are seen as closer to nature than men and according to some theorists, the connection between women and nature is clearly rooted in the biological processes of reproduction. Women are the keystone to this biodiversity management. Even though women have a high workload but they have successfully protect preserved and passed from generation to generation traditional knowledge. Yet, as a result of numerous reasons, this whole traditional knowledge information continues to be jeopardized over the past couple of decades. Any manner, women's job as carriers and the preservers of this knowledge hasn't been sufficiently recognized up till now. The article is based on research carried out in Melghat Tiger Reserve. It studies the practices carried by adivasi women using traditional knowledge for fishery methods, medicinal plants, and vegetation from forest. The research also aims to present, form the gender perspective on right over traditional knowledge by the underdeveloped and backward adivasi women Melghat Tiger Reserve, Maharashtra. The researcher tries to analyse the legal mechanism for the protection of Traditional Knowledge in India.

**Keywords –** *Adivasi Women, Traditional Knowledge, IPR, Patents, TKDL, Forest Right Act 2006*

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### **I. INTRODUCTION**

“Women's traditional knowledge is the basis of real life sciences because it grows from life and nourishes life.”[1]

Adivasi in Melghat Tiger Reserve (MTR) tend to be traditional in character assuming practices and the religion of the adivasi communities. For livelihood these adivasi depend on forest resources and agriculture maintained by an indigenous life with their own traditional knowledge system. They employ to preserve the long established traditions from their forefather and extend the knowledge in distinct parts of livelihood. Such collectively created knowledge is commonly called as local knowledge. The ongoing tradition of utilizing such knowledge by adivasi has established the belief that such knowledge used in traditional way was useful for the adivasi. In course of time such customized knowledge required the contour of Indigenous Knowledge (IK) that has been limited to some particular communities and region and special knowledge searchers discover the successful use of such traditional knowledge (TK) for adivasi and are intent to maintain the TK for the communities. It's a recognised truth that Indian has powerful and extended social, racial and ethnic organizations that create a TK program because of its people.

Since India has a long established and a rich culture there is abundant reservoir of traditional knowledge in every part of the country. Likewise MTR is a historical land having enriched cultural heritage which has varied communities and vast resources. Its flora and fauna are vast and varied in nature. The article is intended to unfurl the essence of traditional knowledge in MTR and discuss that the TK is just not in the need for documentation of indigenous knowledge system for the State, but to recognize adivasi or tribal communities right over access and use to traditional knowledge of the natural resources. The article focus on the limited literature on gender approach of TK, which direct the task, performed by women, particularly adivasi women, as custodians of Traditional knowledge and as consumers and producers of traditional knowledge. The researcher will look in Role of women in TK of medicine, Vegetation from forest, fishing techniques. The second part

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deals with protection of traditional knowledge in present legal regime. This section summarizes current discussions on intellectual property rights, Patent, Forest Right Act 2006 and Biological Diversity Act 2002. The present study is an attempt to understand traditional knowledge system used in managing biological resources for medicinal value, the vegetation from forest and fishing techniques in a MTR.

To evaluate women's involvement and analyze the existing status of traditional knowledge system in present day of MTR, a study was conducted in 5 villages. The 5 villages were selected on the basis of near to core area and on the list of relocation from MTR. To understand the role of women better in the traditional knowledge, we also included their roles in wild vegetables, fishing techniques and medicinal use from biological resources.

## **II. RESEARCH OBJECTIVE**

- To study the role of women in protection of traditional knowledge.
- To study the practices of adivasi women in wild vegetation, medicinal plants and fishing techniques by using traditional knowledge at MTR.
- To review and assess national policies and legislation in relation to right of adivasi women to access and control over traditional knowledge.

## **III. THE STUDY AREA**

MTR Extends over an area of 1676.93 Km. of Southern Tropical Dry Deciduous Forests buffered by another approximate 1200km. of Reserve Forests. It harbours a viable population of Tiger (73 -1998 estimate) Supported by another 20-25 tigers in the surrounding reserve forests. The area is catchments to the five major rivers viz. Khandu, Khapna, Sipna, Gadaga and Dolar all of which are tributaries of river Tapti. The Teak (*Tectona grandis*) dominated Dry deciduous forests of the area harbors variety of fauna and flora making state it one of the prime biodiversity repository in Maharashtra State[2]

**Flora at MTR:** There are over 700 naturalized species belonging to 400 genera and 97 families. There are 90 tree species, 66 shrub species, 320 herb species, 56 climber species, 23 sedge species and 99 grass species. [3] Medicinal plant species of ethno botanical importance number more than 250 species. [4]

## **IV. CONCEPT AND DEFINITIONS OF TRADITIONAL KNOWLEDGE**

Traditional Knowledge is held by communities and cultures over generations, and has deep cultural and economic significance. It includes a diversity of knowledge such as literary, artistic and scientific works, medical practices, agricultural techniques, handicraft, songs and dances. Traditional Knowledge about the biodiversity can include the healing, agricultural and sacred properties of plants, animal, as well as condition of cultivation and processing methods. Traditional Knowledge is found in ancient text, Traditional science, and folklore and in the continuing practices and beliefs of communities. Most often it is transmitted from generation to generation as oral knowledge. It is important to note that traditional knowledge is not static, but dynamic, constantly being shaped and changed by innovation and practice of each generation. The social process of learning, sharing and shaping the knowledge is core aspect of knowledge tradition.[5]

The term "traditional" used in describing this knowledge does not imply that this knowledge is old or not technical in nature, but "tradition based."It is "traditional" because it is created in a manner that reflects the 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. [6] Traditional knowledge is collective in 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.[7]

As there is no proper definition of traditional knowledge the Convention on Biological Diversity (CBD) official Web describes the traditional knowledge as, "Traditional knowledge refers to the knowledge, innovations and practices of indigenous and local communities around the world." [8] Evolved from a fact increased throughout the hundreds of years and adjusted to the local culture and condition, traditional knowledge is transmitted orally from era to era. It incline to be jointly possess and appears as stories, melodies, legends, sayings, social qualities, convictions, ceremonies, group laws, local dialect, and rural works on, including the improvement of plant species and creature breeds. Traditional knowledge is essentially of a useful sort; especially in such fields as farming, fisheries, wellbeing, agriculture, ranger service and ecological administration in general. Traditional knowledge alludes to the learning, developments and practices of indigenous and local groups the world over. As an idea, traditional knowledge is hard to characterize and to recognize from other knowledge. One approach to manage this trouble is to evade a definition through and state essentially that TK is the information held by customary people and groups. This was characterized in the official site of CBD. Be that as it may, this is not by any stretch of the imagination supportive, in any case, since

TK can hold on and even exist in urbanized western social orders. Such social orders may likewise receive components of TK frameworks from different social orders.

The World Intellectual Property Organizations (WIPO) working definitions state that TK is knowledge which is “generated, preserved and transmitted in a traditional context and between generations; distinctively associated with or linked to a traditional or indigenous cultural or community (or communities) through a sense of custodianship or cultural responsibility; or identified by the source community as being traditional knowledge.” [9]

TK is defined in general, by WIPO as “the content or substance of knowledge resulting from intellectual activity in a traditional context, and is not limited to any specific field, extending to agricultural, environmental and medicinal knowledge, and knowledge associated with genetic resources.” [10]

The World Intellectual Property Organization (WIPO) has a mandate to include intellectual property (IP) protection and its work has focused on IP forms of traditional knowledge protection. In its fact-finding mission (FFM) report, WIPO referred to TK as “...tradition-based literary, artistic or scientific works; performances; inventions; scientific discoveries; designs; marks, names and symbols; undisclosed information; and all other tradition based innovations and creations resulting from intellectual activity in the industrial, scientific, literary or artistic fields”. [11]

## **V. WOMEN AND TRADITIONAL KNOWLEDGE**

Women and forest are strongly connected with one another because women, especially those residing in forest have a deep connection with the forest ecology since they're in charge of collecting water, as well as food, fuel, fodder leaves for their family. Thus, women immediately perform a significant part in the protection of the forest that will be quite critical to the achievement of the preservation plan in addition to it using forest resources. In this article researcher have attempted to investigate how women in Melghat are focused on safety of traditional knowledge issues. Forest ecology's quick change has received a significant effect on the lifestyles of women as it adds to their burden. Due to the powerful patriarchal control women in the current situation, are not able to communicate their views or exercise their privileges; neither can any efforts be made by them about their information that is traditional. This failure of the women to use their traditional knowledge has resulted in the gradual decline of their traditional knowledge's power.

The adivasi women of MTR play a key role in maintaining TK. They are responsible for the food and nutritional needs of the families and play an important role in maintaining traditional knowledge about wild foods and biological resources. Adivasi women still practice their age old plant remedies because of their strong belief in customs and culture.

However, when we discuss maintaining and handling traditional knowledge system, the critical role played by women cannot be dismissed. It's a fact that women have considerably more matter-of-fact understanding of the practices where they have been engaged; resulting in a sort of specialisation; but whether the knowledge so created is influenced more by specialisation or by gender isn't an easy question to reply. [12] Does gender make a difference to the nature of knowledge on the environment? It is a question on which research needs to be done[13]

Venkateshwaran[14] points out that their old-fashioned strategy isn't something built-in, arising from their being women, but due to work endeavours and their job. The close association between natural resources and women exists because of the societal and economic functions which have for generations needed them to supply fuel, food, and fodder in the surroundings. Except ploughing, women carry out nearly all harvest creation tasks to help their men folk. [15]

The function of women becomes significant in the traditional society situated in the forest where the people's support is still influenced by their sustainable utilisation and the sensible management of its natural resources. Forest, grasslands, farms, livestock and water all were organically linked with each other and everybody respected this link. Farming was done at a subsistent level with forest supplied a powerful support base they provided leaf-litter for manure to be used in agriculture and fodder for animals. The livestock manure in turn, enriched farms and forest. Practices and knowledge in a traditional society, living in a close proximity functioned like a well-oiled system. Unlike the knowledge that is modern it's neither atomised nor isolated. Instead, it turned out to be a highly interdependent network. Women well understand the linkage as they perform multiple jobs and operate between sectors. The field study with respect to traditional knowledge of wild edible vegetation and their beneficial values shows that adivasi rely upon the resources which are available in or around forest area.

The adivasi women meet their nutritional need from forest resources. They have traditionally acquired the information of wild edible vegetation. This TK is useful to develop new meals sources. Recognising the adivasi women's access to the TK of wild edible vegetation along with their ethno medicinal uses is essential for preservation. Fishing is a common hobby as well as daily routine activity protein supplement. [16]

Wild vegetation plays a significant role in adivasi women's life in forest as they are the ones who are responsible for the food and nutritional need of the family. The following are the little wild edible vegetation which the adivasi women of MTR use as per traditional knowledge which researcher found during her field study at MTR:

**a. Vegetation from Forest (Melghat)**

- **Amaltaasa:** Leaves of the plant is used as vegetable. The flowers and pods have medicinal value and are edible.
- **Amba:** Though fruits are well known, adivasi, in addition use tender leaves (when still reddish in colour). Tender leaves are made into chutteny. It tastes like young fruits and has very pleasant aroma.
- **Champa:** Very tender shoots used as vegetable. Flowers also used as vegetable after removing the outer side of flower.
- **Gunj, Gunchi:** Flowers sweet; either eaten raw or made into vegetable. Leaves also sweet tasting, chewed as mouth freshener; is used as ingredient of 'Pan'.
- **Jangli Matol, Nand-Kand, Karu Kand:** Tubers are eaten.
- **Kantel Phool:** Used as vegetable.
- **Kekti, Kektad:** Flower buds and young flowers are eaten raw. They are made into chutney.
- **Kena:** Leaves are used to make pakodas.
- **Khatti Bhaji:** Young leaf has pleasant acid taste and is eaten raw like green salad.
- **Pimpal, Pipri:** Young leaves used as vegetable.
- **Ran Bhendi:** Young fruits used for making vegetable. Seeds used to make curry.
- **Safed Musali:** Tubers eaten raw, supposed to be very nutritious. Nowadays adivasi do not use them personally, but collect to sale to the traders. Young leaves used as vegetable.
- **Umbar:** Ripe fruits (receptacles) eaten.

**b. Fishing**

Adivasi women of MTR exercise diverse fishing methods since time memorable. This traditional techniques having experienced less socioeconomic impact but sustainable method of fishing and does not harm the local biodiversity. They still depend upon traditional methods and practices for their livelihood and rich protein intake. Fish is an integral part of adivasi food habit since time immemorial for the MTR and the traditional fishing technique are worth of studying.

During fieldwork, researcher was able to witness adivasi women in fishing. The very first thing was to change the direction of flow of stream which may suits the arrangement of further fishing setup. For that they first built one dam with sand from the riverbed and some mud from the riverbank, which allowed fish to flow to the bank. They then built another dam to stop the fish from going back to the main flow. Once the water was thus segregated, everyone started removing water from it. The process lasted about four hours. The water was out, and then the adivasi women started catching the small fish with their special instrument made for catching fish. The most interesting part of this process was the limited communication that adivasi women used to organize the collective harvesting of fish.

**c. Traditional medicines**

While men do more laborious work like cutting of timber, women concentrate on NTFP collection, fodder, and fuel wood. Consequently, men and women have a difference in knowledge about forest resources. [17] It is women who are credited with more extensive knowledge about forests. Tribal women in India use almost 300 forest species for medicinal purposes. [18] The Melghat forests in a hilly landscape of Satpura range, is extremely opaque, occupy an area of about 4000 Sq. km and has a main populace of Korkus and Gond adivasi depend on knowledge of local "vaidus" and "bhagats" for primary health care. [19] These local doctors depend on seasonally available local flora for treating human diseases and store herbal material available in hilly areas as dried roots, rhizomes, fruits, seeds forms etc. [20]

To put the traditional knowledge of medicines in proper manner the researcher has referred to few secondary researches on Traditional Knowledge of medicines from MTR. This is due to the limitation of the researcher being not very well versed with ethno medical names of biological resources found in Melghat tiger reserve. The following are only few TK on medicines on the basis of field study conducted by researcher at MTR:

1. **Local name:** Akau ki patti,

**Scientific name:** Calotropis procera , Asclepiadaceae[21]

**Medicinal use:** the gum of the leaves is used to apply on the tooth if the tooth needs to remove. Leaves are heated a bit and tied over swelled body part.

2. **Local name:** Awala  
**Scientific name:** phyllanthus emlica[22]  
**Medicinal use:** the leaves and the fruits seeds of amala are used in vitamin deficiency. Also amala leaves are burn and the ashes are applied on the burns scare are they will remove the scare.
3. **Local name:** Bael  
**Scientific name:** Aegle marmelos  
**Medicinal use:** the fruit and the leaves are used for Piles, Jaundice, pitta.
4. **Local name:** Babul  
**Scientific name:** Acacia arabica  
**Medicinal use:** leaves are used for diarrhoea and dysentery. Babul Sticks of Acacia arabica are well known remedies for dental caries.
5. **Local name:** Bharatti[23]  
**Scientific name:** Maytenus emerginata  
**Medicinal use:** Roots are used in gastrointestinal troubles, especially dysentery. Leaf ash with ghee is applied on sores as ointment.
6. **Local name:** Chitto ki jadi  
**Scientific name:** not found  
**Medicinal use:** it is used by adivasi to on cuts and wounds to stop bleeding.
7. **Local name:** Dikamali  
**Scientific name:** Gardenia gummifera[24]  
**Medicinal use:** used for Nervous disorders, diarrhoea.
8. **Local name:** Gulvel  
**Scientific name:** Tinospora cordifolia[25]  
**Medicinal use:** the Stem is used for constant fever and also for the diabetes.
9. **Local name:** Gunja  
**Scientific name:** Abrus precatorius [26]  
**Medicinal use:** Roots Scorpion bite, skin damage, swelling and for abortion.
10. **Local name:** Raan Kanda  
**Scientific name:** Costus speciosus (Koenig). Sm (Zingiberaceae) [27]  
**Medicinal use:** the root paste is given to cattle in fever.
11. **Local name:** Nagarmotha  
**Scientific name:** Cyperus scariosus [28]  
**Medicinal use:** roots are used for indigestion and for hair disorder
12. **Local name:** Nirgudi  
**Scientific name:** Vitex negundo[29]  
**Medicinal use:** use for Bone fracture
13. **Local name:** Sagargota  
**Scientific name:** Caesalpinia bonducella[30]  
**Medicinal use:** Fever nut studied antibacterial, antimalarial activity of Seed of
14. **Local name:** Tendru  
**Scientific name:** Diospyros melanoxylon[31]  
**Medicinal use:** The Fruits are used for Anti-pregnancy.
15. **Local name:** Vavdinga  
**Scientific name:** Embelia ribes[32]  
**Medicinal use:** Seeds heartburn, cramp pain, cough, asthma
16. **Local name:** Yerandi  
**Scientific name:** not found  
**Medicinal use:** Leaves and seeds are used for Anti swelling
17. **Local name:** Lajalu  
**Scientific name:** Biophytum sensitivum DC. Geraniaceae[33]  
**Medicinal use:** Heat problems
18. **Local name:** Musali,  
**Scientific name:** Chlorophytum tuberosum [34]  
**Medicinal use:** Tuber powder with milk given in seminal debility.
19. **Local name:** Jangali teel  
**Scientific name:** Sesamum mulayanum [35]  
**Medicinal use:** the oil used for rub on joints for pain.
20. **Local name:** Pipal[36]

**Scientific name:** *Ficus religiosa* Linn. (Moraceae) **Medicinal use:** the young leaves are used in snake bite. It is believed that the leaf petiole when inserted in both the ears sucks poison from the body. And ashes of stem bark in asthma.

## VI. TK AND IPR

A very lesser known fact about India is that there are around 100 million forest dwellers, many of whom belong to schedule tribes and adivasi. The forests provide sustenance (basic need to survive), by way of forest resources and forest produce. In change, the adivasi have over the generations assembled information from the environment around them. The forests and adivasi all together and gives to India rich knowledge about the long-established value of various forest products. [37]

The intellectual property rights are designed in such a way that, traditional knowledge cannot be protected. For instance, traditional knowledge cannot be patented because such information lacks inventive character. Traditional knowledge is also often used together by adivasi communities rather than by individuals. This traditional knowledge is information that's carried from generation to generation usually with no sufficient documentation within the adivasi or within households within the adivasi in an oral form. It's caused traditional knowledge to be undervalued. Actually, one of many fears in these communities is that if the knowledge were to be recorded it will happen to be vanished. [38]

### ➤ **The Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006:**

The Act recognizes the rights of tribal's and other forest dwellers who have been residing in forests for generations but whose rights could not be recorded during the consolidation of state forests. Parliament passed the Act in December 2006 and notified it on December 31, 2007. The Act aims to ensure that tribal communities and other traditional forest dwellers have the legal right to own collect, use and dispose of minor forest products including medicinal plants. [39] It provides the gramasabha the ability to begin the procedure to determine the nature and extent of individual and community forest rights.

The Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006, itself admits this fact and has given a framework for documentation of traditional knowledge and the type of evidence needed in respect of such knowledge in the intellectual property for recognition of the rights of the adivasi communities. [40]

### ➤ **Biodiversity Act 2002**

The Act prescribes some special provisions for the protection of TK. Among them Chapter II of the Act, regulates access to biological diversity. 'Certain persons' are forbidden by Act form any biological resources in India or any information related thereto for study or for trade exploitation or for bio-safety and bio-utilization. [41] The Act prevents any person from transferring the results of any research for monitory consideration or other wise to such certain persons without previous approval of the NBA (Article 3, 4). The main provisions about intellectual property right on biological resources and associated knowledge are enumerated under Sec 6 of the Act. [42] According to this Section, no person shall apply for any IPR, by whatever name called, in or outside India for any invention based on any research or information on a biological resource obtained from India without obtaining the previous approval of the NBA. To get access to biological resources by Indian national or researchers the NBA provide some guidelines so that the benefits that arise from it should be shared with local communities. [43] The Act provides that benefit sharing may include monetary payment, technology transfer or joint ownership of IP rights, but this is not an exhaustive list. [44]

### ➤ **Patents Act 1970(amendment 2005)**

Accordingly, in 2005 India has enacted the Patents (Amendment) Act and introduced product patents along with some provisions relating to TK. Firstly, the changes made to the definition of the term 'patent' which means a patent granted for an invention under the Act [Section 2(1)(m)] and specifications of 'invention' which are not patentable in Section 3 of the Act which states that 'a mere new use for a known substance' [Section 3(d)] and 'an invention which, in effect, is traditional knowledge or which is and aggregation or duplication or known properties of traditionally known component or components' [Section 3(p)] will not be an invention. Secondly, the inclusion of the new provisions of patent opposition proceedings which can be done on limited grounds under Section 25(1) of the Act as: Where an application for a patent has been published but a patent has not been granted, any person may, in writing, represent by way of opposition to the Controller against the grant of patent on the ground of (a) patentability including novelty, inventive step and industrial applicability, or (b) non-disclosure or wrongful disclosure mentioning in complete specification, source and geographical origin of biological material used in the invention and anticipation of invention by the knowledge, oral or otherwise available within any local or indigenous community in India or elsewhere. Thirdly, inclusion of the provision for the opposition of a complete patent specification of an invention which was publicly known or publicly used in India before priority date of that claim [Section 25(3)(d)]. However the

uncertainty occurs so as to, which type of TK is protected beneath these provisions. To clarify this confusion, the definition of the TK has to be specified in the Act. This direct us to a requirement of a sui generis system for the protection of TK and its subsets which could be a blend of various systems of protection, i.e. patents, trade secrets, geographical indications and a cultural heritage of the nation. [45]

➤ **Discussion on protection of TK by Forest Right Act 2006, Biodiversity Act 2002 and Patents Act 1970**

Dr. Mohan Dewan[46] argue that the provisions of the Biological Diversity Act 2002 and Forest Rights Act of 2006 offers to protect traditional knowledge in two ways, on the one hand, respecting and protecting the knowledge of adivasi communities linked to bio-diversity and on the another hand, declaring the intellectual property rights, in such traditional knowledge belongs to adivasi all together. Both Acts acknowledge the traditional knowledge of the tribal/forest dwellers is to be regarded as equal to that of certificated medical and technological advice otherwise prevalent in the adivasi, thus redressing the historical injustice done to them who are primary to the very survival and sustainability to the ecosystem. As a corollary, the Amendments made in the Indian Patents Act in 1970, echo this sentiment. For example, for opposing or revoking a patent the amendments to section 25 and section 64 are made which deals with additional grounds, the grounds that what is claimed as an invention is already known within the realms of traditional knowledge. [47] It is envisaged that in the application of these provisions the standards of evidence required to prove these grounds will be considerably less rigorous than those required for establishing the other grounds of opposition or revocation such as lack of novelty and inventive step. Alongside the privilege, the obligation and right is likewise gave on the holders of traditional knowledge, for the economical utilization of these different natural resources, preservation of biodiversity, upkeep of the sensitive biological adjust and fortifying the protection administration of the forests[48]. The recognition of Forest Rights Act of 2006 provides for the fact that the intellectual property rights (IPRs) in all forest produce belong to forest dwellers themselves whereas the Biological Diversities Act of 2002 has provisions by which the forest dwellers and other individuals and communities conserving biological resources and holders of knowledge and information relating to the use of biological resources will secure and share benefits from these IPRs. The Biological Diversities Act also provides for conservation and development of areas which are declared as biological diversity heritage sites. [49]

➤ **Traditional Knowledge Digital Library (TKDL)**

TKDL is a cooperative venture between National Institute of Science Communication and Information Resources (NISCAIR), Council of Scientific and Industrial Research, Ministry of Science and Technology and Department of AYUSH, Ministry of Health and Family Welfare, which is being actualized at NISCAIR. A inter disciplinary group of Traditional Medicine (Ayurveda, Unani, Siddha, and Yoga) specialists, patent analysts, IT specialists, researchers and specialized officers are included in production of TKDL for Indian Systems of Medicine. The Project TKDL includes documentation of the traditional knowledge out in the open space on customary information from the current writing identified with Ayurveda, Unani and Siddha, in digitized arrange in five global dialects which are English, German, French, Japanese and Spanish. [50]

At the international and national level there are various agencies for the protection of traditional knowledge. The International Human Rights instruments recognized traditional knowledge of indigenous people as human right under right to cultural since 1948, recognition of protection of traditional knowledge under the shelter of human rights is new phenomena human rights standards alone do not adequately protect traditional knowledge. Traditional knowledge has not yet been recognized as an effective way for the protection of traditional knowledge, both at the national and International level, because of human rights law emphasis only dignity, equality and other rights of human beings. It may be noted that there is evidence of conflict between IPR and Human Rights IPR are being used contrary to the goals and obligations of developing countries. Intellectual property protection can have serious implications on the access to medicines. Indian Judiciary is regarded highly on the world and it must set on example by expanding the scope of human rights with in intellectual property rights. [51]

➤ **The convention and instrument which recognize women's role in protection of TK**

Indigenous traditional knowledge is not simply a different type of intellectual property; it is a completely different entity. [52]

Women's traditional roles as keepers of biodiversity are widely recognized and reflected in several international plans of action and organizations concerned with biodiversity, health and food security, including:

- The Convention on Biological Diversity Preamble affirms the central role of women drawing specific attention to "the need for the full participation of women at all levels of policy-making and implementation for biological diversity conservation".
- Agenda 21, adopted at the Earth Summit, Rio de Janeiro, 1992, stresses the need to strengthen women's involvement in national ecosystem management and control of environmental degradation.

• The United Nations Food and Agriculture Organization (FAO) has drawn attention to the different roles that men and women maintain within livelihoods systems that comprise farms and home gardens, common property resources, such as pastures and forested lands, as well as protected areas. In addition to providing vegetables, these home gardens are also experimental plots where women try out and adapt diverse wild plant and indigenous species. There are gender dimensions to the impacts of processes of globalization on traditional medicine, to the knowledge itself, and to strategies governments adopt to take advantage of booming markets for traditional medicine. [53] Some of the adverse effects of processes of globalization and trade liberalization on traditional knowledge in medicine include the introduction of imported foods as a result of tariff reductions that impact on and may diminish the use of local varieties of plants. [54]

## VII. CONCLUSION

A Patent cannot protect TK for various reasons. Firstly, it is impossible to identify the individual inventor. Secondly, exclusive ownership of plants is alien to tribal customs. The required criteria of novelty and inventive step are not always possible. Community rights to TK is needed i.e. rights to wild local foods, health culture, promotion of traditional customs and practices, traditional fishing, seed saving methods etc.

There still a grey area about the protection of TK under IPR regime. And a sui generis system should be introduced to protect the traditional knowledge.

To conclude on the gender dimension over the right to TK, the study has clearly demonstrated that women are the backbone to preserve and protect TK. Women are a reservoir of traditional knowledge system of forestry medicinal plants despite the highly skewed division of labour and decision making.

Women's TK can make a significant contribution to achieving sustainable outcomes in development. Therefore, there is a need to make sustained and focused efforts towards facilitating the incorporation of women's knowledge into broader development efforts. To enable women to maximize their TK contribution to the development process, national governments and development partners need to go beyond gender-balanced participation of women in development activities and develop approaches that provide them with.

Recognition, through a commitment by governments and development partners to direct specific research towards TK of women; to identify, document, and appropriately disseminate women's TK; to help strengthen existing women's knowledge networks; and to provide Forum for the exchange of knowledge between women and the formal sciences. Recognition, of course, also includes the possibility for traditional women practitioners to gain income from their TK as well as recognize their right over TK and not be taken advantage of in arrangements that deprive them of possibilities to practice their skills. It's just not the registration of their TK but the right of women over traditional knowledge from generation to generation.

In India, with its history of patriarchal societies, there are several laws and policies, such as land laws and inheritance rules, which need to be revised for real gender equity. With limited rights to resources and equally limited say in the political processes that set the boundaries of these rights, merely attempting to protect the intellectual heritage of women would be rendered meaningless. It's the need of the hour to recognize traditional knowledge as a 'gendered science', which would help "legitimize and strengthen adivasi women's".

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