NTFP and Gender -roles, practices and knowledge amongst some indigenous communities in India.

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Case Studies done by NTFP-EP India partners

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Introduction

Our study aims to understand the gender relations in the NTFP harvest, management, trade and access in the context of forest use in India. We look at gender through the lens of balancing power and decision making. We are keen to understand what factors determine and translate to roles and responsibilities with regard to NTFP. We are interested to know what can be done to bring more parity in gender where it doesn't exist and what can be learnt from places where it is strong.

Non-timber Forest Products and Indigenous Communities

An estimated one in 6 persons globally depends on forests, particularly for supplementary food, including about 60 million indigenous people who are almost wholly forest dependent (Vira et al. 2016). Estimates of the revenue contributions of Non TimberForest Products (NTFPs) in India vary considerably. Some estimate that NTFPs contribute US$ 208 million to the Indian economy while another calculation places the revenues from NTFPs at US$ 645million (Lele et al. 1994). Yet another estimate offered by Poffenberger (1990), finds the total annual contribution of NTFPs from the central Indian tribal belt exceeding $500 million. All these values highlight the economic significance of NTFPs to forest-dependent communities. However, it is pertinent at this point to note that actual monetary benefits accrued to forest-dependent communities is a rather miniscule amount in reality.But, besides their economic value to livelihoods, NTFPS have tremendoussocial and cultural significance, as well. Some NTFPs like tubers, honey, bamboo shoots and wild fruits are an important supplement to the diet of indigenous community and access to these resources ensures not only food security, but also resources relevant to their traditional and cultural practices.

Several studies indicate the role of socio-economic factors on indigenous household decision-making in forest resource extraction (Cavendish2000; Godoy et. al.2000; Illukpitiya & Yanagida, 2010; Shylajan & Mythili, 2012; Krishnakumar et al, 2014). Coomes (1995), and Balee & Gely (1989), report on how "historical" factors and cultural factors, respectively, affect forest resource access and use decisions. Within the socio-cultural context, gender is a key influencing variable, as well (Shackleton & Shackleton, 2000).
Also, high variability, productivity, excludability; the socio-democratic processes that manage resources, (e.g., community size, gender, and class differences); institutional arrangements under which resources are managed, (e.g. property rights, access rules, harvesting rules); and the external environment, are all factors that affect sustainable resource use (Agrawal, 2001).These variables are particularly relevant when considering the role of diverse stakeholders who have influence over forest resource use and outcomes. Therefore, it is important to recognize the socio-political and cultural status of the stakeholders and how it may influence decisions and access to forest resources, particularly NTFPS. This idea of multiple stakeholders and their involvement in natural resource management has gained momentum since the 1990s, where representation and voice of the voiceless is recognized as paramount. Cornwall (2013) talks about how the concept of "full participation" and "empowerment" maybe held relevant but, oftentimes, overlook social relationships and power structures in communities. With more devolution of power through the passing of the Forest Rights Act (2006), in India there is a need to be more aware of the outcomes of such participatory, decentralized models. Rout (2018) argues that rather than highlighting the broader impacts participatory models have on the community, who participates and who gets affected or benefited must be the indicators for evaluating the success of participatory models. Once such indicator is gender parity, where greater access by women to social networks, the presence of a critical mass of women, the mobilisation of women collectives and increased bargaining power to negotiate with restrictive patriarchal social norms, all become relevant indicators. In the larger context of sustainable natural resource management this realization and recognition of gender parity is important, but it is particularly and more significantly relevant in the context of NTFPs- its access, use and management.

Review of Literature
NTFP Use and Management: Gender and Decision Making

Gender equity is a fundamental human right and a matter of social justice. It is also reported as essential for the sustainable use and management of natural resources. For example, studies in natural resource management especially on non-timber forest products (NTFP) have found that men and women play both complementary roles in the context of natural resource use and management and also gender specific roles. There is also a general notion that women contribute more towards NTFP harvest and processing, this is not the case in several parts of the world and is site and context dependant (Sunderland et. al 2014; Bechtel, 2010).

Women have been assumed to be the guardians of biodiversity given their involvement in small-scale farming. Women are largely responsible for food security and water-supply for their families and communities. However, in most circumstances, women do not have the central power of decision making and governance due to restrictions placed by traditional gender norms or patriarchy (Agarwal 2010). Numerous studies from India, Nepal and African countries also show that women are underrepresented in forest management institutions even though their participation has been observed to bring positive outcomes on income levels and sustainable resource use (Sarin 1995, Agarwal, 2001, Agarwal, 2009, Upadhyay, 2005, Mwangi et al., 2011).In fact, differences in terms of tenure, cultural uses, and access are influenced by gender and usually, in many societies, women's rights are mediated through their relationships with men (Mwangi et al 2011).

Fortmann (2006) also recognizes the importance of conceptualizing and capturing women's knowledge and understanding of forest as different from that of men. Gendered influences are also found in key factors influencing livelihood outcomes. This includes what is consumed, how much is consumed and more broadly how tenure arrangements affect these decisions and outcomes (Agrawal 2001). Gender specialization can also occur in gathering and processing of forest products (Sunderland et al. 2014), which suggests different sets of perception, knowledge, and awareness.

A global comparison carried out using household data from the Poverty Environment Network case studies spanning across three continents- Asia, Africa and Latin America, highlights the similarities and differences that exist among regions. While some of the findings are derived from individual case studies, it is also evident that all but one is not universal. This heterogeneity complicates policy design but is essential for policymakers to keep in mind when designing policies and management regimes that aim to support environmental management in relation to genders (Sunderland et al. 2014).

NTFP and Gender: Access and Nature of Dependencies- Global Perspectives

Institutional arrangements also influence how and why women depend on common property resources for their livelihoods. Often, women find themselves excluded from the planning processes and other times, cultural norms highlighting gender specific roles, responsibilities and expectations all influence access to forest and gendered outcomes (Agarwal 1997, 2001, 2007). This also explains instances where conservation or protection rules tend to be broken as evident in the context of grazing and or firewood collection (Sarin, 1995; Agarwal, 2007).

Other factors influencing management, collection and sale of forest resources are household composition where women hold responsibility for ensuring household livelihood due to male outmigration (Giri & Dranhofer, 2010) or due to death of male members (Agarwal, 2009). In this context however, location and market access and integration also influence gendered outcomes (Belcher et al., 2005; Ruiz-Pérez et al., 2004).

In the context of household income from forest products, a global study by Sunderland et al. (2014), page 3) reports that men and women contribute almost equally to household income, but with some regional differences. For example, in Latin America, and Asian sites, the share value of forest products is higher for men. In contrast, in Africa, the share value of unprocessed products collected by women is higher than that collected by men. Also, men were found to dominate activities such as timber harvesting and hunting across all the areas, versus women, who were largely engaged in wild plant food collection in Asia and Africa only. In Latin America women were found to collect resources largely from the commons, like men in Africa.

However, it is important to note that other variables such as size of the land holding, distance to the forest, distance to the market, extent of market integration and market diversification all influence gendered outcomes in the context of forest incomes. Income versus subsistence use of forest products was also influenced by gender and showed regional variations. For example, Africa indicated a greater subsistence share of forest products, dominated by women and with very little shared activity compared to Latin America or Asia.

In Africa, a study by (Kassa and Yigezu 2015) analysed factors influencing income from NTFPs collection by women, its contribution to the annual household incomes and reducing inequality. The study reported that variables such as non-NTFP (other) income, time spent in NTFP collection, proximity to the forest and distance to market significantly affected the income women derive from NTFP activities and lowered income disparity[1]. This is also pertinent considering income derived by women have direct impacts on household food, children's health, and education (Blumberg, 1988; Duflo & Udry, 2004, Kennedy & Peters, 1992; Kishore, 2000; Thomas et al, 1990).

Another study conducted in Cameroon also reported direct and positive association between access and collection of wild food from forests and women's health status, especially boosting iron levels among the women, after controlling for non-diet factors that influence anaemia levels – such as the presence of malaria, parasites or worms (Tata et al.,2019).These findings therefore suggest that policy programmes must pay attention to women's linkage to NTFP activities and its positive implication on income and reducing inequality.

Interestingly, studies from the Global North indicate parallels with that of Global South in terms of opportunities to participate in decision making on natural resource management or harvest of natural resources (Davis, Nuss & White, 2015; Cook, 2013). The study by Colfer et al (2019), also found parallels in terms of political economy of natural resources as seen in developing countries, where interactions with more powerful external forces (e.g., Li, 2015) influenced gendered outcomes

1. Using GINI index Kassa and Yigezu (2015) showed how with NTFPs production (income) the income disparity lowered from 0.40 to 0.27 on inclusion of NTFPs.

NTFP and Gender: Management and Nature of Dependencies- Perspectives from India

In India, it is primarily the tribal communities who are directly dependent on NTFPs for sustenance and livelihoods. A study on gender-based contribution from NTFP collection to the income among the three tribal communities namely Irula, Muduga, and Kurumba in Western Ghats reported that the Irulas settled in the lower plains who had better educational status and alternative job opportunities depended the least on NTFPs, followed by the Mudugas. The Kurumbas, settled in the interior areas, depended the most on NTFPs, since the other job opportunities and resources were scarce. In terms of percentage contribution from a gendered perspective, among the Irulas, men and women contributed 50% each, whereas in Muduga community men and women contributed 65 and 35%respectively and among the Kurumbas, women contributed 56% and men contributed 44% of their income from NTFP(Alex et al, 2016). A study focusing on Kadars indicated a significant positive association between NTFP income and male collectors (Krishnakumar et al, 2014). This could be because the men were more interested in the collection of commercially important NTFPs, which fetched higher prices. The women collected a greater number of NTFPs, especially, roots of medicinal plants which had made significant contribution to their income and household needs (Alex et al, 2016).

Secure land access and tenure rights also have implications on gender-dependencies on NTFPs, their use and management. Study by Agarwal (2018) reports on how secure land rights can enhance the productivity of women farmers and improve intra-household nutritional allocations since owning property increases women's bargaining power within families. Access to natural resources, such as forests and fisheries, can provide important additional sources of nutritional diversity, since women are the main gatherers of food from forests and the principal producers in small-scale and inland fisheries. However, access to forest and marine resources are mainly controlled by their management committees which determine the rules of protection and extraction. Hence, synergies between gender equality, conservation and food security is desired. For

instance, in India (and Nepal), the likelihood of improved forest conservation is found to be significantly higher where forest management committees have 25–33% women, than those which have few or no women (Agarwal, 2009; 2010). In the long run, this also increases the supply of diverse forest products, and women's access to these products, thus contributing to food security in direct and indirect ways. Similar outcomes could be expected with women's greater involvement in marine resource management, beyond inland fisheries which are already largely in women's domain (Agarwal, 2018).

These realizations also become relevant in the context of SDG goals, particularly Goal 5 focusing on Gender Equality. Here, the emphasis is on household food security and how it is affected by women's access to land and natural resources. In fact, Agarwal (2018) argues that a lack of recognition of gender equality will have implications on SDGs 1, 2, and 13 on poverty, hunger, and climate change respectively, but also SDGs 14 and 15 that has direct bearings on resource conservation.

Research Design and Methodology

The NTFP EP network in India (https://ntfp.org.in) is a collaborative network of NGOs working with indigenous people and NTFPs since twenty years. Over the years there have been many new dimensions introduced like community-based conservation, harvesting protocols and partners have also specialised in specific NTFPs e.g. gums & resins, wild honey, bamboo looking at aspects of ecology, livelihoods, trade and culture. Many partners worked with women SHGs but we had not explored the gender dimensions of NTFP. This dimension was studied by doing case studies on different NTFPs by partners across India. The information was captured in a questionnaire common to all partners.

Frame work of Analysis

The core of gender relations relates to Power and the balance of that in every action. It relates to aspects of who has access and who has control, in this case over resources and decisions and governance of the same. At a very simple level, this relates to the activities – who does what? This determines time and effort put into the activity and very often is the cause of everyday concern between men and women.

However, what seems more important is also who are the bearers of knowledge related to that resource. This relates to a deeper understanding about the resource and its sustainability, how it would thrive and how best to use it. In any community, the behaviour and knowledge have determinants which can be simply societal norms or mind-sets, deeper socio-cultural systems or policy or legal frameworks of the country as depicted graphically in Figure 1.

Figure 1: Social Determinants of Behaviour and Knowledge

Guided by this framework, using a qualitative approach, case studies focusing on key NTFPS from different forest landscapes of India, containing dependent Indigenous population were undertaken. The case studies were then compiled, and analysed based on the following key indicators, using a gendered lens:

please refer to table on the next page

Broad Questions	Indicators
1. **Do men or women or both have the knowledge related to this NTFP**	• Availability • Seasonality • Survival • Relationship to other plants and animals • Key properties and use
2. **Analyse the gender of activities undertaken around the NTFP. Explore – Men Women, Both, Children, Old Men/Women**	• Collection/Harvesting • Storage • Carrying from the Forest • Processing (partial or full) • Consumption practices/recipes • Marketing
3. **What are the` access and control 'aspects of NTFPs in relation to gender**	• Harvesting decisions and gendered roles • Customs or ceremonies around NTFP collection • Decision around consumption and sales • Decision on pricing and market mechanisms and negotiations • Decisions on monetary benefits, savings and use • Gendered representation and role in collection and marketing through community based groups (e.g. SHGS, Co-ops)
4. **What determines these relations of men and women in the world of NTFP in your area/in your community?**	• Socio – cultural/Traditional norms • Socio Economic Determinants e.g. returns, motivation, knowledge • Attitude and perceptions around benefits and aspirations • Policies/Legal /Institutional arrangements or mechanisms – government led institutions like VFC/VSS; Rules around FRA, PESA and Protected Areas
5. **Do you think any change is required in gender relations for this work around NTFPs?**	If yes: • What needs to be done? • What can be tweaked to achieve more gender equity? • Collective efforts to discuss role of men and women with respect to the specific NTFP or NTFPs in general • Policy recommendations towards improve gender relations

Results & Analysis

The various case studies brought out different results from across India. The details of each case are discussed in the Fact Sheets in this report (Annexure 2).

From the ---number of case studies spread across regions of India these are some of the key results presented below. The results are arranged under two main topics Gender roles and Access & Control. The case studies took into consideration plant based NTFPs, mainly from forest areas and involving indigenous communities as key stakeholders. Table below gives an overview of the resources that were chosen for the study and also the division of roles when it came to activities like harvesting, processing, consumption and marketing.

1. Gender Roles

Table – Gender roles in NTFP management

	NTFPs and Gender Roles								
		Harvesting		Processing		Self-consumption		Marketing	
S. No.	Resources	Women	Men	Women	Men	Women	Men	Women	Men
1	Cycas seeds & leaves - Nilambur, Kerala	1	1	1		1			1
2	Cycas seeds & leaves - Vazhachal, Kerala	1	1	1	1	1			
3	Sal Leaf - Simlipal	1		1	1	1		1	
4	Yams - Bastar	1	1	1		1		1	
5	Tendu Leaves- Yavatmal	1	1	1	1				1
6	Mahua Flower - Yavatmal	1	1	1		1		1	
7	Gum Karaya - AP		1	1				1	1
8	Karvanda - Maharashtra	1	1	1		1		1	1
9	Terminalia Chebula - Maharashtra	1	1	1	1			1	1
10	Hydnocarpus - Kerala	1	1	1	1				1
11	Greens - Tamil Nadu	1	1	1	1	1	1		
12	Chironji- Chattisgarh	1	1	1		1		1	1
13	Tamarind - Chattisgarh	1	1	1		1		1	1
14	Tamarind - AP	1	1	1		1		1	1
15	Shikakai - Tamil Nadu	1	1	1		1		1	1
16	Apisdorsata - Tamil Nadu		1			1	1		1
17	Phoenix spp. – Tamil Nadu	1	1	1		1			1

Harvesting Practices:

Of the 17 NTFPs we studied we found that for most of them an equal amount of activities were undertaken by women and men. Harvesting on NTFPs was done both by men and women and there were no taboos practiced restricting women, except in the collection of Apis dorsata amongst Kurumba people of the Nilgiris. Harvest of Gum Karaya is almost always done by men. In some cases harvesting is strictly the role of women as in Simlipal region with Sal leaves which are processed for leaf cups and plate making. In the case of Phoenix leaves which are made into brooms, the leaf collection is carried out both by women and men working together.

There are some exceptions to these strict gender roles amongst these communities. Only one case reported about the community practicing first-fruit ceremony before the harvest of Char/Chironji (Buchanania lanzan), irrespective of gender. In the case of Apis dorsata honey hunting, it is strictly in the male domain, with no exception across India. Men amongst the Kurumba community practice strict socio-cultural norms for honey hunting. Abstaining from contact of women and remaining 'pure' for at least 7-10 days before the hunting is practiced. The people say that the bees are their Gods and all cliffs are sacred as their ancestors dwell there. It is believed that any violation will lead to the risk of falling from the cliff or not being able to survive if the bees attack. In such cases cultural beliefs also play an important role influencing gender roles.

Post-harvest Processing:

Processing of most of the NTFPs is done by women and only in six out of the seventeen products studied, involved men (refer Table --).Processing of bulk products like Sal leaf bundles, cup making, Phoenix leaves and Tendu leaf bundling, hard seed coat-removal from Hydnocarpus and Cycas fruits is done both by men and women. Wild foods like yams and greens are mostly processed by women and used for self-consumption.

Factors determining engagement with the market:

We found that in the case of marketing of NTFPs, it is equally done by men and women, though there are some factors determining this. If the market is close-by, e.g. In the weekly village haat or the trader comes to the village, women are engaged in marketing and handling money. However, if the market is at a distance or formal, men are taking the lead in marketing NTFPs. Some examples of this are Tendu leaf in Maharashtra, Hydnocarpus which is sold to oil mills in Kerala and honey in Tamil Nadu.

Some of the determinants of legal and policy framework are making a dent in social norm, in the formation of women Self-help Groups to work in non-conventional areas of work. There are examples of this across India where SHGs are dealing with NTFPs like Mahua, Tamarind and Sal Leaf. This organisation of women has taken the control from men and made women the decision-makers and controllers of income from the sale of NTFPs. Usually these SHGs are supported by civil society groups in both mobilisation, capacity building and strengthening.

2. Access and Control

We have mapped the NTFPs we studied in a Four-Square Analysis (Figure 2) for access and control using a gendered lens. We applied an inductive process of analysis , where recurring patterns pertaining to access & control were identified and positioned on to the four-square plot.

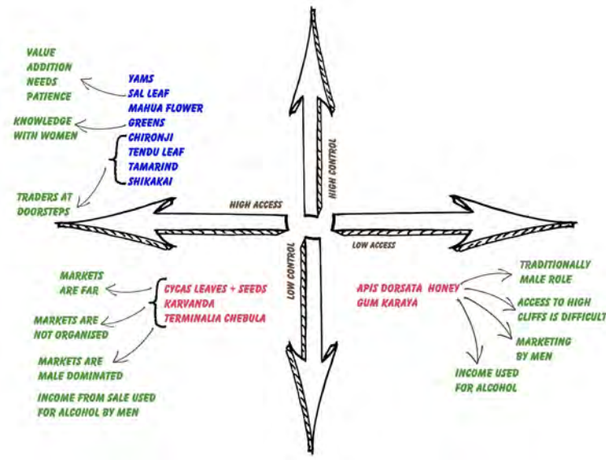

Figure 2: Four-Square Analysis of Access and Control

Analysing this from a gender perspective to see where the power lies needs to be seen from several perspectives.

Access to Assets:

In most cases, access and control to NTFPs by women is seen on those NTFPs which can be collected easily. Most of them are fruits and leaves, easy to harvest as also abundantly available in the forests. Control over use, sale or subsistence is dependent on a variety of factors. In the case of subsistence NTFPs, women have the knowledge of where the produce is found, harvest seasons, methods and use. Some tubers and yams must be processed before they can be eaten, some greens are bitter and need to be boiled etc. Recipes of these wild foods are usually also with women, though in some communities men also keep this knowledge and practice. Knowledge and information play an important determinant of access and control of natural resources.

The other important aspect of income and women having control over the returns from NTFPs collected, is the availability of markets. It was seen in the case of Chironji and Tamarind, the buyer/trader came to the village to buy the produce or, as in the case of Tendu leaf, the market was organised through cooperatives and locally accessible to women, rates were fixed, no bargaining was necessary. In both these cases, women found it easy to control the income from NTFPs.

Beliefs and Perceptions:

On the other spectrum are some NTFPs that women do not harvest (access) nor control its use. Many of the `hunted' species of NTFPs fall in this category. One of them studied, Apisdorsata honey hunting by the Kurumba community has strong beliefs and perceptions that women cannot be involved in this activity. Purity rituals and prayers need to be performed several days before honey hunting starts. Men traditionally have social groupings and fully control access as cliffs are allocated to different honey hunting groups. Men have knowledge about practices, tools, methods related to honeybees and their combs. They also take the honey to the market and use the returns partially or fully. In most cases, women complained that there were low returns as men used the income for alcohol consumption. Here, too, the perception that women take better care of income and men indulge in wasteful expenditure, comes true.

In most communities, forest access for women is not allowed during menstruation. This was mentioned specifically in the case of Phoenix leaf collection in Tamil Nadu, where it is believed that elephants and birds will know and send out calls to inform the forest. These beliefs are slowly changing now.

Institutions Laws and Policies:

Institutional mechanisms and Governance of NTFPs and Markets play an important role in the power women yield and how they benefit in the process. Self-Help Group formation with women, undertaken by many NGOs, plays an important role in changing the control of NTFP management and returns in the favour of women. In cases like Sal leaf in Simlipal, Tendu and Mahua in Maharashtra women headed institutions or women SHGs oversee marketing of produce. The income and profits use are also decided by them. This has changed the traditional role, where usually men dealt with the market as well as control the income.

Market proximity is an important variable for what power women have over the produce, rates and bargaining power. Usually it is seen, that further away markets deter women from traveling to those spots with the produce. Village haats or close-by markets give women the ability to sell the produce directly and negotiate with the buyers. Formal marketing institutions like VFCs, co-operatives, producer companies also deter women as the system has `technical' dealings, bills, vouchers, online payment procedures, etc. which act like barriers for barely literate Adivasi women. This emerges in cases of Terminalia chebula, Karvanda, Cycas seeds, Phoenix leaves, honey and Gum Karaya where markets are formalised, and male-dominated.

Tenure Rights, Ownership, and Inheritance rights for NTFPs, related infrastructure, tools and practice also determine the power women yield on NTFP management. Usually, forest rights boundaries, control and protection of the same are done by community headmen with the support of male members of the community. Specific trees for resin or cliffs for honey collection are inherited by men and go to the son/male member in the community. Overall, inheritance of land and its resources follow the patriarchal lineage, except in very few cases/communities.

Practices and Participation:

The last determinant to women's power relates to practices in the community related to time, space and mobility. In many communities, this determines the role men and women play, the time they can devote to it and the related freedom in mobility. For example, communities have practices related to women going alone to the forest, driving bikes, what time of the day/night they should travel, talking to strangers, etc. In the case of NTFP these factors are important in dealing with markets and participating in governance. In our case studies of NTFPs and related communities, women have a disadvantaged position. However, we do see some changes occurring with more women participation in Panchayats and attending Gram Sabha meetings. More and more women are organised as Self-Help Groups are taking initiative to gather and market NTFPs. The role of NGOs and governments in bringing this change is commendable by capacity building and organising of women groups, as well as providing reservation for women in local governance.

Discussion

Often, management; collection; and sale of forest-produce are largely male domains while the woman's responsibility becomes ensuring household livelihood when male members out-migrate (Giri & Dranhofer, 2010).

Vested Responsibilities & Wasted Knowledge

We find through our case studies, several examples, where women and men from the community have knowledge related to specific aspects in the forest and some defined activities. Even within some forest-collections the activities are nuanced e.g. fishing is a mixed activity when it involves bailing/dyking, but a male effort if it is net or hook and line. Hunting for small game is an individual male effort, larger game is often done by groups of men. This has an impact on the diets and nutrition of women as much of what is hunted by men is shared amongst them. Amongst plants, NTFPs used for subsistence are usually collected by women in most Adivasi communities e.g. wild foods, medicines, fodder, etc. These are usually for the family and livestock. This knowledge and role sharing are traditional practice and the social groupings associated with these are hard to change.

Nightingale (2003), in working with Donna Haraway's position on the 'partiality' of knowledge, attempts to bring to the fore the gendered nature of knowledge-creation itself. Much literature has drawn attention to the subjective experience and understanding of women from that of men (Fortmann, 2006). It has been noted several times in our case-studies how men are the ones who go deeper into the forest-tracts, while women tend to collect and harvest NTFPs in closer vicinity to home. An assumption can, therefore, be made that men's knowledge perhaps could get valued (maybe within the community) due to the 'interiority' of the availability of certain NTFPs, while, women's labour get under-valued (in comparison to the risks involved in accessing 'difficult' NTFPs) due to their 'easy' access to certain NTFPs. There are however exceptions to these assumptions, where women and children accompanied by men, travel into the forest for days, for collecting honey and lichens. Nevertheless, it is pertinent to understand that the gendered nature of knowledge-creation itself can, in fact, be a valuable insight for designing intervention programmes, specific to communities.

State Provisions & Customary Workings

Women are a minority in all institutions related to NTFP. This is valid of institutions from the village to the global level, though, we see a dynamic scenario of gender relations in the NTFP world. This seems to be more enhanced in the commercial NTFPs, where organisations are working to collectivise women and build their capacities. This is changing the gender roles and more women are coming forward for decision making and marketing. On the part of policy recommendation, the individual capacity of women should be enhanced radically as this will increase their participation. Legal and monetary functions should be enhanced to ensure more and more gender equity. In the present form even though women are participating, their agency lacks since most money disposal functions are performed by men and, hence, women lack the respect they deserve.

Altering this could ensure more gender equity. More community-oriented discussions around gender equity are required with the people to enable changes in classical roles and perceptions.

'Empowerment', 'participation', and 'equal representation' may seem lucrative terms characteristic of liberal policy considerations afforded through legislation of the FRA 2006. One, however, needs to give a deeper and wider consideration to the possibility of (varied) amalgams being created when customary laws and practices meet with state-driven policies (Cornwall, 2013).

State-sanctioned boundaries when superimposed with the community 'headman'-sanctioned ones may present a different picture for women's access to and control of resources. Assuming that de jure, provisions afforded by the FRA are gender-neutral, the gendered-lenses may come into picture due to the community's own cultural norms, practices, and male-dominated headship.

Communities with skewed gender-power balance need to be identified to determine interventions nodes. What applies to one community may or may not necessarily apply for another. If one wants to undo the blind-generalizations made by state-policies and its oft-ignored repercussions, then, one also needs to refrain from making the same mistake of generalization.

Some of the aspects least covered in the case studies are related to the protection status and management of forests. A change in access caused by declaration of protected areas affect women more in their day to day needs of firewood and fodder. Similarly, collection of wild foods gets reduced, which impacts household level nutrition.

Who might benefit from Gender - Fixedness?

No one, really. Though, the structuration perhaps helps make sense of the world. Constant valorization of particular characteristics by the society accrue rewards to those who share the characteristics (men) and accrue punishment to those who deviate from the assigned-characteristics (whether it be men, women, and others who do not quite fit the category).

While "technicality" or "skills" can safely be assumed to be gender-neutral, it is observed through our case-studies that women still appear to perform the role of a care-taker of the household while men do the 'outside' job of marketing. It has been noted that location and market-access produce gendered outcomes (Belcher et al. 2005; Ruiz-Perez et al, 2004). With increasing establishments of SHGs, however, there appears to be a gradual foray of women into the marketing domain, as well. A study by Kassa & Yigezu (2015) found that when income from non-NTFPs & NTFP-collection, in addition to favourable proximity to the forest and market, positively impacted income-disparity. This is believed to have subsequent positive outcomes for the family's health and children's education (Blumberg, 1988, Duflo and Udry, 2004, Kennedy and Peters, 1992, Kishore, 2000, Thomas et al., 1990). Likewise, in our case-studies, increasing relevance of SHGs in women's lives surely appears to be a positive marker for empowerment. However, the monetary significance taking over cultural-significance of NTFPs seems all too evident throughout our case-studies. This appears to be a cause for concern; for the family unit, as well as, the community as a whole.

Moreover, having an ownership of property has been found to increase a woman's bargaining power within the family (Agarwal, 2018). However, numerous studies also point towards a negligible outcome of a woman's ownership to property- owing to lack of resources, cultural expectations/norms, and conflicted responsibilities which result in the woman not being able to manage the resource effectively (Jackson, 2003).

Conclusion

Often the restrictive factors for women's participation and decisive role within the family, village committees, forest (management) committees include lack of de jure ownership of land; physical/technical skills; safety & security concerns; cultural sanctions around mobility, use of space & time; household responsibilities; and proximity to market (Sunderland et al., 2014).

Restricted mobility to and within customarily-distributed forest-lands increasingly coming under 'Protected Areas', coupled with new aspirations, and therefore, shifting livelihood practices appears (somewhat) to impinge upon NTFP-collection as a family-task. Changing practices seem to have reduced a collective practice to monetary terms, largely. Although, by no means is an attempt being made here to justify/validate oppressive traditional beliefs, norms, or practices of a community biased against a particular gender; the shift in livelihood practices (e.g. male-outmigration) seems to reinforce gender roles which may unduly work against one gender or the other. It has been stated intriguingly, in the case of Kovel Foundation's finding- that women and men appear to have "excellent role clarity". The complementary nature of working, with due recognition to strengths and weaknesses, must be acknowledged.

Though, small in numbers, the case studies do mention cases where men cook when their wives are menstruating and women who climb trees to harvest NTFPs. Hence, it becomes pertinent to not get lured into the very easy business of generalization of particular characteristics to a particular gender, especially, in light of the dynamic nature of social, political, cultural, and economic climates we live in. To treat a particular gender as a homogenous entity with homogenous characteristics would not only be erroneous, but, in fact, may further contribute to/reinforce existing skewed power-balances.

One might like to give thought to the idea that perhaps the very social sanctions that restrict/render women as "untechnical" are the very same sanctions that shame men for contributing to household chores. In line with Cecile Jackson's criticism of the WDE literature (for its bias towards women alone), it would make sense to realize that gender sensitivity targeted at educating one gender alone seems a futile task unless the social-constructs and sanctions laid-out for all genders involved are not addressed and demystified.

In summary, development interventions in the arena of NTFPs should be mindful of the gendered nature of its access, use and decisions. This also means that programmes must be designed in such a manner as to include both, men and women, in all steps/segments of the activity, depending on wherever it is that their strengths and interests lie. While developing NTFP-based enterprises, the focus of training must include management, accounting, and stock-taking, as well as processing, value addition and basic marketing skills. Similarly, in policy and governance related to NTFPs, gender biases and norms, specific to the community must be considered. These include factors such as access to market information, credit and environmental issues, and livelihood and food security, all of which have implications for women and men. The prescribed ratio of representation of men and women in governance bodies may be helpful, if met. However, considering the loopholes the decision-making process is fraught with, a preferred starting point could be to create greater gender sensitivity amongst all stakeholders involved. Organisations involved in collective action can target women to address some of their strengths and general constraints, so as to help with positioning them in certain roles which can contribute to the overall development of the community. These may include improving their efficiency in NTFP related livelihood activities by providing them with time saving technologies or arranging child care. While it is important to keep in view the specific histories of communities to make sense of why a community does what it does or why certain things have worked out and certain others have not, it would be interesting to capture, perhaps as a future line of inquiry, how NTFP collection practice has evolved in the neo-liberal era with the fortress conservation model of the state, thereby, having repercussions for lives, livelihoods, and lifestyles, in general, and perception of gender and gender roles, specifically.

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Annexure 1 – Case Studies: List of NTFPs and Regions

Gender & NRM – NTFP Case Studies

S. No	Name	Organisation and Regions	NTFP 1	NTFP 2	NTFP 3
1	Madhu	NTFP EP/ Chattisgarh	Yam	Fish	
2	Hema	Kovel Foundation/ Andhra Pradesh	Gum Karaya	Tamarind	
3	Dr.Moghe	GSMT/ Maharashtra	Tendu	Mahua	
4	Ramgulam	Chhattisgarh	Tamarind	Mahua	Char
5	Vijay	Lok Panchayat,/Maharashtra	Hirda	Karaonda	
6	Manju	RRC/Kerala	Cycascircinalis		
7	Bhavya	Keystone /NBR (Hasanur)	Phoenix spp.		
8	Ashish	Keystone/NBR(Sigur)	Greens (Saag/Keerai)		
9	Ramu	Keystone/NBR (Nilambur)	MorottiHydnocarpusspp	Cycascircinalis	
10	Jyotsna	Keystone /NBR (Konnavakarai)	Shikakai		
11	Deepak	Gram Swaraj/Odisha	Sal Leaf		
12	Sneh	Keystone /NBR	Apisdorsata honey		

Annexure 2: Fact Sheets- NTFPs in Focus

CHIRONJI - PRERAK

A **GENDER & NTFP** CASE-STUDY ON

Chironji (*Buchanania lanzan*)

SPECIES, USES, & LIVELIHOODS

Chhattisgarh, India

Found abundantly in the forested regions of Chhattisgarh, this tree can be identified by its dark-grey crocodile bark with red blaze. Traditional indigenous knowledge reveals the immense value of almost all parts of this tree i.e. roots, leaves, fruits, seeds and gum and attributes medicinal properties to cure various ailments.

Chironji survives well with other plants, and monkeys and boars forage on its fruits.

This species has high socio-economic value for forest-dependent communities. Both women and men are knowledgeable about the collection and use-value of the Chironji, and collection usually happens in the month of May. However, overexploitation and indiscriminate harvesting (lopping and cutting), pose severe threats to the survival of this species, and conservation efforts are needed.

Chironji tree

GENDER ACTIVITIES

Collection/Harvest

- The collection of 'Chironji fruits' is often a family affair, with children sometimes accompanying the adults.

Storage/Processing

- Cleaning, sorting the fresh fruits, drying and proper storage is mainly done by women using their traditional methods

Sale

- Neither men nor women go out to sell the produce. Rather, it is sold to the middlemen at the village itself.
- Sometimes, community leaders negotiate the rate with the middlemen on behalf of the people until a satisfactory agreement is arrived at.

ACCESS & CONTROL

- Men and women both have the access and control over this NTFP.
- Before harvesting, community people are invited by the 'village baiga' and a gathering is arranged to worship their Gods and Goddesses.
- Following this harvesting decisions made both by men and women in the community together

Insights and Learnings

Improved awareness, gender training, through disseminating information on women's rights are essential to strengthen gender equity.

A gender inclusive discussion is essential to ensure easy collection, processing and trade of Chironji.

Case-study contributed by PRERAK, Chhattisgarh

GUM KARAYA - Kovel Foundation

A **GENDER & NTFP** CASE-STUDY ON

Gum Karaya (derived from *Sterculia urens*)

SPECIES, USES, & LIVELIHOODS

Andhra Pradesh, India

Gum karaya (also known as Indian tragacanth) is obtained almost exclusively from *Sterculia urens*. Gums are, plant exudates that result partly from natural phenomenon and partly from injury to the stem's bark. There are 12 Gum Karaya species in India, largely found in tropical Himalayas, West and Central India, Deccan Plateau and throughout the Eastern and Western Ghats of India.

Traditional Uses: Gum Karaya of Grade 1 quality is soaked with sugar overnight and used as a cooling agent. Gum is also soaked in coconut water overnight and consumed. Its seeds are roasted and eaten, its timber used for making agricultural tools and carved boats. Most of these traditional preparations and uses seem to be known to the community members, irrespective of their gender.

Industrial Uses: Gum Karaya has high industrial usage - in approximately 25 industries, including pharmaceuticals, dairy, cosmetics, etc. This is also used in products/processes viz. sweets & savouries, petroleum/gas, paper, dry cell batteries, adhesives, fabric and printing.

Sterculia urens

GENDER ACTIVITIES

Hardened Gum Karaya

Collection/Harvest

- Usually men are engaged in pre-harvest, harvest and collection. The gum is carried in cloth bags, traditional utensils prepared from wild bottle gourd, bamboo baskets, and carry bags. In female-headed households/households without men, women take on the role of gum-collection.
- In the Chenchu peoples' area, adults take their children along for harvest during which they stay in the forest for a week to harvest, process, and dry the gum before coming back to the village. However, this practice often results in irregularity or dropping out of school, among the children.

Storage/Processing

- Household level cleaning, processing, drying and storing are done by women. Removal of unwanted materials from the gum, grade-wise segregation of gum, drying and storing are related tasks

Sale

- In around 50% of the families, both men and women go together to the market to sell gum and in the remaining half, men alone are engaged in sales.
- In cases where both men and women members of the family go to the market, the money is jointly spent towards meeting household needs. In cases where only men go, the spending pattern is different as they spend equally or more on alcohol and tobacco than on household goods.

GUM KARAYA - Kovel Foundation

ACCESS & CONTROL

Harvest Decisions:

- Harvesting season from October to May.
- Men usually harvest the gum. It is not clearly known whether this is discussed with women. However, the decisions arrived at depend on village level discussions.

Sale & Monetary Decisions:

- Neither of the genders get to decide the price of the gum collected as it is either Girijan Cooperative Corporation or the traders who decide the price. When it comes to negotiation, both men and women participate.
- The surplus money, if any, is either spent towards alcohol, tobacco, etc. or kept by the men.
- In a vast majority of cases, there is an understanding between men and women about family's priorities. In such cases, it did not matter who is in control of cash.

Customs/Ceremonies/Cultural Norms:

- No specific customary taboo for women exists for Gum Karaya collection.

Insights and Learnings

In over 80% of families, men play a responsible role and support women in managing family needs.

Gender based strengths are leveraged for the benefit of the family.

Women-centric training enables them to take on technical and managerial support roles.

Strengthened financial-literacy and its management can increase agency amongst women.

NTFP EP

KOVEL

Case-study contributed by Kovel Foundation, Andhra Pradesh

TAMARIND - Kovel Foundation

A **GENDER & NTFP** CASE-STUDY ON

Tamarind (*Tamarindus indica*)

SPECIES, USES, & LIVELIHOODS

Andhra Pradesh, India

Found largely in household-courtyards and in village commons, the young fruit is extremely sour and acidic to consume directly, but used as an ingredient in savoury dishes.

The ripened fruit is somewhat sweeter and less sour, but still very acidic.

Its leaves and tender pods are used to prepare pickles, and also used as a cleaning agent for brass, bronze and copper utensils.

Roasted tamarind seed is peeled, and soaked in salt water overnight and consumed.

Tamarind wood is also used for making coal.

Fruit pulp is medicinal –a concoction made by mixing tamarind, sugar, garlic, pepper, and ginger is used for treating common cold and cough and general weakness. It is also effective in the treatment of cattle. This knowledge is held by both men and women.

Tamarind tree

GENDER ACTIVITIES

Collection/Harvest

- Both men and women participate equally in the collection. If harvesting from a tamarind tree inside the forest, a family harvests from one particular tree regularly and conserves the tree for future harvesting. If the family is not in a position to harvest, they let another family take-over.
- Younger men climb onto the tree to reach difficult branches using long and hefty angular stick called *Dhona Karra*.
- Tarpaulin/cloth is spread beneath the tree to collect fallen tamarind pods. Women, children, and older family members are engaged in collecting the fallen fruits into baskets/jute bags.
- Additional labour is engaged, at times, wherein both men and women play similar roles.

Storage/Processing

- The fruits are de-shelled by women. Older and younger members of the family participate, too.
- De-seeding and storage is taken care of by women. Seeds are collected separately and stored in gunny bags.
- Assistance from men is sought as per need.
- Some communities also make 1 kg cakes wherever cake-making mould is available.

Sales

- Both the family members carry the headloads of tamarind to the market. It is either sold to GCC at the purchase point or to middlemen. (GCC remains their preferred buyer due to the transparent practices followed)
- Men usually decide which middleman to sell their tamarind to. However, there are instances where women take charge of the above activities, but in considerably less percentage.

TAMARIND - Kovel Foundation

ACCESS & CONTROL

Harvest Decisions:

- Men test the produce by climbing the tree and give feedback about the maturity of the pods and then both the members decide when to harvest.

Sales & Monetary Decisions:

- As both women and men go to the market to sell the tamarind, they spend much of it on purchase of household provisions. The surplus money if any is either spent towards alcohol, tobacco, etc or kept by the men. However, in one of the villages participants presented a well-evolved and positive picture of their financial management.

Customs/Ceremonies/Cultural Norms:

- On the first round of collection, a rooster is offered at the tree base as a prayer. The culminating process is carried out by men. This is to pray for protecting those who climb the trees from falling accidentally. There are also certain beliefs about evil spirits especially with reference to tamarind trees.
- The practice of offering a rooster has no relevance to sustainability but for the fear of accident and evil spirits – villagers insist that this happens.

Insights and Learnings

In over 80% of families, men play a responsible role and support women in managing family needs.

Gender based strengths are leveraged for the benefit of the family.

Women-centric training enables them to take on technical and managerial support roles.

Strengthened financial-literacy and its management can increase agency amongst women.

Case-study contributed by Kovel Foundation, Andhra Pradesh

GREENS - Keystone Foundation

A **GENDER & NTFP** CASE-STUDY ON

Greens

SPECIES, USES, & LIVELIHOODS

Tamil Nadu, India

Both men and women have knowledge related to Greens, the varieties available, their use, location, survival conditions, and use-value for animals. *Kovakeerai, Munnakeerai, Vasalai daag, Paalai daag, Mushtai daag etc. (daag means keerai/greens in Irula)* are some of the common greens collected.

Although, there is not a widespread and well-understood knowledge of the properties of every species of Greens they use, community members seem to believe that greens are good for health.

Men and women both collect greens for consumption. The older community members appear to be concerned regarding the diminishing knowledge and use of Greens amongst the younger generation.

Marudde Soppe

Mullukeerai

GENDER ACTIVITIES

Collection/Harvest

- Both men and women collect Greens from the forest, often while grazing their cattle.

Storage/Processing

- Both men and women know how to use it. It is usually fried or cooked with water. *Paalai daag* is used with milk.

Sale

- Greens do not have a market and hence, no monetary-value associated with it.
- It contributes non-monetarily to their livelihood. Thus, there are no complex governance and access systems in place for collection/use of Greens as a NTFP.

ACCESS & CONTROL

Harvesting Decisions:

- There are specific harvesting protocols or gender specific roles around Greens. Generally whoever finds it, collects it and brings it home.
- Greens provide a different scenario because it is essentially not governed by rules laid down by the Forest Department on NTFP collection.
- It is a subsistence NTFP supplementing diets as a food

Insights and Learnings

When a family gets the first greens of the season, it is cooked and a part of it is offered to their ancestors in the family. This practice is called '*padayal*'.

The greens are available for only six months during the rains.

The entire branch or the entire plant is never cut, and this allows the plant to grow in the wild sustainably.

Case-study contributed by Keystone Foundation, Tamil Nadu

A GENDER & NTFP CASE-STUDY ON Hirda (*Terminalia chebula*)

SPECIES, USES & LIVELIHOODS

Maharashtra, India

Terminalia chebula is a deciduous forest tree found in the Sub Himalayan region and eastwards to West Bengal and Assam, ascending up to an altitude of 1,500 m (4,900 ft) in the Himalayas. It is also common in Central India, the Western and the Eastern Ghats. Its habitat includes dry slopes up to 900 m (3,000 ft) in elevation. This tree yields small, ribbed nut-like fruits that are picked when still green and then pickled, boiled in sugar syrup or used in preserves.

The seed of the fruit has an elliptical shape and is an abrasive seed enveloped by a fleshy and firm pulp. Seven types of fruits are recognized (Vijaya, Rohini, Putana, Amrita, Abhaya, Jivanti, and Chetaki) ubiquitous to the region where they are found.

Vijaya is a preferred variety, which is traditionally found in the Vindhya Range of West-Central India, and has a roundish shape, as opposed to a more angular shape of other varieties.

The fruit is used in leather-tanning and dyeing cloth. *Terminalia chebula* is the main ingredient in the Ayurvedic formulation Triphala, which is used for kidney and liver dysfunctions.

Hirda Tree

Hirda Fruits

GENDER ACTIVITIES

Collection/Harvest

- Men and women are engaged in *Hirda* harvesting, while children and older members play a supporting role.

Storage/Processing

- Storage and processing is managed by both men and women. Freshly harvested *Hirda* is mixed with cow-dung ash and stored in a PVC bag by women. Finally, it is sun-dried prior to its sale or domestic use.

Sale

- In Maharashtra, the Tribal Development Cooperative Corporation is the main buyer of *Hirda* fruit. It is also sold to local and small traders.
- Baal *Hirda* (Baby fruits) has a huge demand for its medicinal properties and usually traditional harvesters get a fair price.
- Mature *Hirda* are bigger in size do not fetch fair prices for the gatherers.
- Sales is an activity mainly done by men. Both women and men trade the produce, however the quantities they handle are different.

ACCESS & CONTROL

Harvest decisions:

- Harvesting decisions jointly taken by men and women. Both have similar nature of workings, i.e. for the purpose of grazing, fuel wood collection, fishing and common farming activities.
- Only mature fruits are selected for collection in most NTFPs. Here the demand for 'baby fruits' is high.

Harvested Hirda Fruits

Customs/Ceremonies/Cultural Norms:

- Women are not allowed to harvest fruits within the sacred grove. Customs related to harvesting of the fruit is area/village-specific.
- Men have been found to cut the branches of the tree to gather inaccessible fruit, whereas, women do not. A curved stick is used, which is believed to be a sustainable way, to harvest the fruits.

Insights and Learnings

Women's role in managing NTFP associated income should be emphasized.

Inclusion of younger cohorts of the community in intervention programs may be helpful.

Case-study contributed by Lokpanchayat, Maharashtra

A **GENDER & NTFP** CASE-STUDY ON

Karaonda (*Carissa carandas*)

SPECIES, USES, & LIVELIHOODS

Maharashtra, India

Karaonda (local name in Maharashtra) grows in dry deciduous forests of the Kalasubai-Harishchandragad landscape ,from North Sahyadri, The plant is a sprawling semi-vine shrub about 1.5 to 2 m in height and the leaves are 1-3 inches long, dark green in colour, with shiny, large opposite spines.

If the leaves or stems are injured, a white milky sap will exude. The flowers are small, fragrant, white in colour , and about 3.5 inches long, with pink-coloured stalk.

The fruits are small and purplish to black in colour. The fruit size is variable, but most fruits are about 3.5 inch in diameter with a few seeds. Fruits usually occur in clusters somewhat resembling large purple grapes. After the pre-monsoon showers the fruits are pulpy and extremely sweet.

Karaonda is a well known NTFP and most Adivasi family receive supplementary income from its collection and sale during the months of April and May.

Its fruits are used in the treatment of skin infections and leaves are used as a remedy for fevers, ear-ache and syphilitic pain. It is also reported to have gut-stimulatory effect and, thus, is useful in the treatment of constipation and diarrhoea. The stems are consumed to strengthen tendons. It also possesses analgesic and anti-inflammatory effects.

Karaonda Fruits

GENDER ACTIVITIES

Collection/Harvest

- Men, Women and children in a family are engaged in the harvesting of Karaonda.

Storage/Processing

- Being perishable, it is usually stored only for a few hours or overnight.
- With the support of Lokpanchayat and Baliraja Producer Company a village-level NTFP harvesters group has been initiated to process and develop products such as Karaoanda squash, pickle etc. These activities are carried out by women from five villages.

Sales

- Mature fruits are sold at village markets.
- Women-traders/hawkers go door-to-door selling the fruits.
- Barter is another form of trade that women engage in. Men travel about 100 km from their village to sell Karaonda, while women take their produce up to 20-30 km for sale.

ACCESS & CONTROL

Harvest decisions:

- Harvesting decisions are taken by men and women, and they are both involved in collection of the fruit, often times in conjunction with other activities such as fire wood collection and grazing.

Customs/Ceremonies/Cultural Norms:

- Collection of fruits in the vicinity of the sacred grove is prohibited for all, especially so for women.
- Customs vary according to the area and village. For example, in Phofasandi village and Kaloba Devrai, the Karavanda plant within the sacred groves are not harvested.
- In general, its harvest is neither preceded nor succeeded by any rituals.

Sale & Monetary decisions:

- Financial transactions with traders are controlled by men and retail transactions are under the control of women.
- Overall right to manage income rests 70% with men and 30% with women.
- Income from Karonda is used for family needs.
- Income utilization - health needs and food related requirements are jointly decided being high up on their priority lists. Savings for children's education and agricultural purposes are also prioritized

Insights and Learnings

Women play a proactive role and support the family in managing family needs.

Income from sale is the main motivation for NTFP collection

Sustainable harvesting protocols, in discussion with community members, could be outlined.

NTFP-EP

Case-study contributed by Lokpanchayat, Maharashtra

A GENDER & NTFP CASE-STUDY ON

Tamarind (*Tamarindus indica*)

SPECIES, USES & LIVELIHOODS

Chhattisgarh, India

Chhattisgarh is one amongst the largest Tamarind growing states in the country. The fruit is considered mature when the pulp is visibly brown or reddish-brown in colour. Tamarind fruits are used for fresh consumption and for the preparation of juices, sauces, jams, beverages and syrups. The pulp is extensively used in cooking.

Both men and women know the uses of Tamarind. In Bastar district of Chhattisgarh, this NTFP is usually found in forest tracts, household backyards and in privately-owned lands. It naturally grows and survives without special care.

GENDER ACTIVITIES

Collection/Harvesting

- Men, women, elders, and children from the family participate in collection/harvest of Tamarind. It is harvested either from the forest or from their personal homestead.

Storage/Processing

- De-seeding and preservation of Tamarind is mainly done by women.

Sales

- Tamarind collected from the forest are sold directly in nearby markets by both men and women.
- It is primarily the women who negotiate with the buyers. Often, it is also sold to the middlemen at a low price in the villages itself.
- Women retain the income and decide on how it will be used, especially in the Bhanpuri Panchayat Area of Bastar.

ACCESS & CONTROL

Harvest Decisions:

- Women have more access and control over this NTFP (Tamarind) than men. However, harvesting decisions are made jointly.

Customs/Ceremonies/Cultural Norms:

- In South-Bastar region, adivasis celebrate Tamarind festival during its harvesting period. This ceremony is exclusive to men alone.
- Offerings to Gods and Goddesses are given prior to consumption and/or sale of the NTFP . Among the tribes of Madia, Gond, Bhuriya, only the Madias are believed to celebrate the festival.
- A significant portion of the income earned from the sale of NTFPs is spent on entertainment and celebration.

Insights and Learnings

Although not much intervention is required in terms of collection and trading of Tamarind, gender sensitisation workshops will be helpful.

Women are prohibited from cooking food and collecting NTFPs during menstruation. This is practice followed and passed down through generations.

NTFP-EP

Case-study contributed by Prerak Trust, Chhattisgarh

A **GENDER & NTFP** CASE-STUDY ON

Sal (*Shorea robusta*)

SPECIES, USES & LIVELIHOODS

Odisha, India

Sal is a tree belonging to the Dipterocarpaceae family and found in the forests of Central and Eastern parts of India, the Himalayan foot hills and the Southern boundary around Sukma in Chhattisgarh.

Sal is an evergreen with associates usually Anogeissus, Terminalia, Diospyros, Mangifera, Dillenia, Bridelia, etc. It naturally propagates primarily through pollination and have been unsuccessful in nursery and plantations.

The collection of Sal leaves for income is an age-old practice, particularly in the Northern part of Odisha and used for making cups, platters, bowls, including umbrellas for protection from rain in the monsoon, during farming activities. The products include the "khalis plates" made out of 7-8 leaves, and the "dwipatri" items made of 2 leaves, stitched together using bamboo splinters. Festivals and rituals very often are observed according to the availability of Sal leaf in the region.

Sal Tree

Stitched Sal leaves

GENDER ACTIVITIES

Collection/Harvest

- The collectors of Sal leaf are mostly girls/women above the age of 12 years.
- The male members of the family and the children help in subsequent operations.

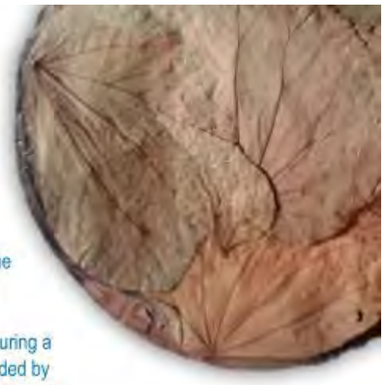
Storage/Processing

- Leaves are dried for two-three days under the sun. The dried leaves are kept overnight under a pressure created by a flat stone or wooden plates to straighten the leaves to make them flexible enough for hand stitching or binding.
- For local sale the leaves are hand-stitched by women with the help of small sticks to form cups, plates and bowls that have traditional use in rural and urban areas.
- In further processing of the leaves, hand stitched plates and *dwipatri* (are converted into plates and bowls of different sizes by molding machines.
- Both men and women operate molding machines.

Sales

- The hand-stitched plates and cups are sold at local markets and to traders.
- Mostly traders procure these items from the village itself.
- Generally, the female members of the family take the products to the local storage-houses or weekly markets.

ACCESS & CONTROL



Harvest Decisions:

- Sal leaves are collected from the forest round the year, except for the four months of the rainy season.
- The Forest Department bans collection and transport of Sal leaves between January-March and July-September. Collection of leaves begins after the new leaves sprout in the month of March.
- In many places, both men and women jointly decide about the mode and time of harvesting. But, it is only the female members who harvest Sal leaves from the forest.

Sales:

- Normally, the price is decided by the traders and both men and women negotiate, thereafter.
- Although, there is provision for ensuring a minimum support price (MSP) decided by the government, the provision seems to be on paper alone.
- Generally, the female members retain the income from sale and both the genders decide about its use-allocation. SHGs led by women seem to be increasingly hold prominence in Sal leaf trade.

Customs/Ceremonies/Cultural Norms:

- There is a tradition of *Phul puja* (Flower ritual) where new leaves are used for offering to the Gods (*prasad*). This marks the beginning of the flowering season.
- The harvesting of leaves begins without any elaborate ceremony or community regulation. But, in many villages the method of harvesting is decided by the village institutions where males tend to dominate the decision-making process. For instance, in many forest areas the collectors are not allowed to take along tools for cutting twigs and only hand-plucking is allowed.

Insights and Learnings

The role of women in value-addition by making new design plates, cups, bowls and other items needs to be strengthened further.

Formation of enterprising institutions of women will support their financial independence.

Policy recommendations on better implementation of FRA in letter and spirit will improve gender relations.

NTFP-EP

Case-study contributed by Gram Swaraj, Odisha

A **GENDER & NTFP** CASE-STUDY ON

Marotti (*Hydnocarpus pentandra*)

SPECIES, USES & LIVELIHOODS

Kerala, India

Hydnocarpus pentandra is a medium sized evergreen tree growing up to ten meters height, normally found along streams and rivers. The tree is locally called as 'Marotti' or Neerutti'. The fruit of the tree is harvested and dried-seeds are sold in the market. The round fruits, when young are black and turn brown when they mature. Harvesting season starts from the month of December and roughly ends by the beginning of June. Most of the community members interviewed have no knowledge on the use of the seed.

The trees are found in forest areas like Kottakulam, Charal Mad, Thampuratti Para, Vattikkal, Kanjirakkadavu and Churuli Potti within the CFR land of Nedunkayam forest village.

Community members have observed some tree bugs locally known as 'Marotti pottan' and different kinds of ants on the trees. The *Hydnocarpus* seeds are believed to have medicinal properties, used in the treatment of leprosy.

Marotti Plant

GENDER ACTIVITIES

Collection/Harvest

- Usually, the family as whole unit is involved in the harvest of fruits. Four to seven families in groups set out for collection of fruits of Marotti.
- Generally, men climb onto the trees and pluck the fruits with support of sickle-shaped tools designed for harvest. Both men and women carry the collected NTFP from the forest.
- Women and children generally must gather the fallen fruits.

Storage/Processing

- Women and children de-shell the fruits and remove the seeds. A curved-knife is used to de-shell and de-seed the fruit. The seed is dried before sale and on an average, a family gets around 150 kg to 200 kg of seeds per season.
- The cleaning, processing, drying and storing are all activities done by women. The fruits are not edible and are harvested for sale alone.

Sale

- January is when the first sale of the harvest is usually done as there is a temple festival called '*Pattulsavam*' (festival of songs) held at Nilambur town.
- It is usually the men who engage in selling in the market. Although, women might accompany them to the market, they do not deal with traders. However, in case of female-headed families, it is the women who deal directly with traders.
- Raw seeds are sold at a rate of Rs. 50 to traders. Dried seeds fetch them around Rs 80 to 100 per kilogram. On an average, each family earns around Rs.15k to 20k per season. The seeds are sold either to private traders or to the ST Development Society.

MAROTTI - Keystone Foundation

ACCESS & CONTROL

Harvest decisions:

- Men usually decide the time of harvest in consultation with women
- Discussion at the village-level holds greater ground since this is a collective effort of families.
- All activities of collection of seeds is done by both men and women together. Only mature fruits are collected.
- Men help with collection when the tree is difficult to harvest from. But in Nedunkayam, there are five women harvesters who are skilled in climbing trees to harvest the fruits.

Customs/Ceremonies/Cultural Norms:

- There are no customs, ceremonies and gender specific norms with respect to *Hydnocarpus* seeds collection.
- To ensure sustainability, the community members would leave two or three branches of a tree without harvesting the fruits. They never cut the branches for the sake of easy harvest.
- However, unsustainable practices are widely prevalent now as harvesting is primarily done for monetary purposes.
- The CFRMC in Nedunkayam has warned against such practices which includes 10 women members out of the total 15 members.
- The sale of the seeds is normally done during the festival times. Women often use the income for paying off the dues for buying clothes, utensils, electronic items, or to pay off dues of Kudumbasree loans and other private loans obtained from money lenders. None of the families interviewed reported having any savings

Sales & Monetary decisions:

- Financial transaction with the traders is usually done by the community men and also controlled by men.
- Men play an integral part in the whole value chain of *Hydnocarpus* seeds from the harvest to the sale.
- In the case of women headed families, women are engaged in harvesting and decide how their income will be used.
- In most cases control of money lies in the hands of men, and it is generally spent on alcohol.

Insights and Learnings

Women collectives can start collection centers at village and initiate marketing of products either through direct sale or through value addition centers.

Lack of savings suggests that trainings can be given to women on financial literacy and management of income.

By strengthening CFRMC and including women in the decision-making process may bring some positive changes and will help to tackle the issues pertaining to market, especially, in dealing with different traders with vested interests.

More study is required to see how female-headed households fare in NTFP collection.

NTFP-EP Keystone

Case-study contributed by Keystone Foundation, Tamil Nadu

A **GENDER & NTFP** CASE-STUDY ON

Shikakai (Acacia concinna)

SPECIES, USES, & LIVELIHOODS

Tamil Nadu, India

There are a small number of people who collect and sell NTFPs, including Shikakai. Although agriculture remains a main source of livelihood, dependency on income from NTFPs continues to hold some relevance in the Nilgiris region.

The powder of Shikakai is mainly used by women for washing hair. It is also used in funerary rites for both men and women. Shikakai and turmeric are ground together and applied on the dead person's body and bathed.

When girls attain puberty, it is customary to was their hair with Shikakai. Also menstruating women are required to wash their hair with it on the last day of the period, before they can re-enter the house. Similar practices were reported from two different study-villages.

GENDER ACTIVITIES

Collection/Harvest

- Shikakai flowers twice a year, but its fruit is harvested only once a year. The harvest season for Shikakai begins in February and ends in May.
- Each harvester (household) in Vellarikombai village collects about 50 kgs to a minimum 18 kgs of dried Shikakai. In Semmanarai, each day, about 40 Kg was collected for 10 days, bringing the total collection to approximately 400 Kg (for the year 2019). Shikakai appeared to be more abundant in the forest closer to this village.
- Only female fruits are harvested because they yield more flesh.

Storage/Processing

- The fruits are put through a quick cleaning process while collecting and carried in a coir bag for transporting from the forest to the village.
- At home they are sun-dried and collected in coir bags, tied-up and stored, ready for the market.
- Besides drying, there is no other processing undertaken. For personal use, some amount of dried Shikakai is powdered and stored at home.

Sales

- A majority of the harvesters from both the villages, sell dried Shikakai to Aadhimalai (a community owned producer company, incubated by Keystone Foundation). Depending on the rate offered, it is sometimes sold to traders in the markets of Mettupalayam or Kotagiri. In 2019, the harvesters received Rs 60/kg from Aadhimalai.
- Sometimes during emergencies, a small amount (~ 10-20 Kgs) is sold directly to the middlemen who visit the village.

SHIKAKAI - Keystone Foundation

ACCESS & CONTROL

Harvest decisions:

- No customary or gender-based restrictions on access or collection of Shikakai
- No formal mechanisms regarding decision of harvest exists. Informally men discuss within their respective households with their wives and reach out to their neighbors and decide a date/day to go for harvest.
- Women usually go the areas closer to the village – forest fringe/patta lands, and men go deeper into the forest for harvest.
- Wild animals' movement often becomes a hindrance for collection for both men and women.
- The earlier practice of a week's stay in the forest has now reduced to a same day return after collection
- The availability of Shikakai seems to be reduced due to land use changes (e.g. tea plantations).

Customs/Ceremonies/Cultural Norms:

- A customary pre-harvest ritual entails the burning of camphor, incense sticks and coconut.
- The ceremony is officiated by the eldest in the group (usually a male) and if the group contains only women, then the ceremony is conducted by the eldest woman in the group.

Insights and Learnings

More clarity is required on the market demand vs. harvesting and processing of Shikakai and the price received.

There are some traditional rules around harvest and perhaps this ensures its sustainability.

The gender-specific relevance to women has the potential to be marketed as something collected, processed, marketed and used by women. This may have positive implications on income at the household level.

Besides market study, more enquiries into its availability, herbal/medicinal properties, and its ecology can be useful in developing sustainable protocols. There may also be scope to bring the product under some form of wild product/ medicinal plant certification.

Consumption/Marketing Decisions:

- Households are responsible for deciding upon how much to keep for self-consumption and what amount to be sold to the market. In Vellarikombai, the Aadhimalai Director is consulted to decide how much to sell to the FPO vs. the local market, and the rates being offered. She is also consulted before a household decides to sell to the market outside.
- In Semmanarai, most of the decisions around quantity for self-consumption and amounts to be sold is decided by men. There is a person in the village who acts as an agent and provides market information to the harvesters and based on the best price, he arranges the sales- either to Aadhimalai or to external markets.

Monetary Decisions:

- Largely, there does not appear to be any gender-based specifics in terms of who keeps the money and who decides how it will be used.
- In Semmanarai, mostly, men were in charge of collection and sales and therefore handling of income rested with them.

NTFP-EP Keystone

Case-study contributed by Keystone Foundation, Tamil Nadu

A **GENDER & NTFP** CASE-STUDY ON

Yams (*Dioscorea sp.*)

SPECIES, USES, & LIVELIHOODS

Chhattisgarh, India

Yams are found in all types of forests and, especially, thrive in open forests. About 20-25 species of yams can be found in peninsular India, though of these only about 6 species are regularly harvested and only 2-3 species cultivated. The most commonly cultivated ones are *D. bulbifera and D. alata*, both species are cultivated in other regions and countries.

Yams

Most yams survive in the wild without special care. In fact, fire is not known to affect them unduly as their growing parts are below the ground. It is mentioned that as yam digging leaves behind small or large pits on the forest floor they help hold water and assist in the growth of plants and trees in the vicinity.

Yam-collection happens after the monsoon is over – November onwards – and continues until the ground becomes too hard to dig, around March-April.

The harvesting protocol of yams is quite simple: all one has to do is to leave behind a growing part of the tuber and cover it up in the pit dug. Regeneration is then taken care of. For some yams (for instance *D. tomentosa*) in Tamil Nadu women tend to dig carefully around the main stem and collect the side-tubers. The main body of the plant is left untouched, which they cover up when they finished with the pit.

It is perhaps the requirement of processing (the facility of having running water, the time needed to process, the skill) that has discouraged many people from harvesting these yams. They are seldom eaten as before.

GENDER ACTIVITIES

Collection/Harvest

- Yam-collection is an activity led by women.
- Men, usually, tag along to help in heavy digging, with large diggers or spades.

Storage/Processing

- Many of the yam species may require processing, especially *D. daemona and D. wallichii*, which involves repeated cooking and draining of the water. In the case of the former species the cut yam is left overnight in flowing water.
- Certain species of yams (*D. pentaphylla, D. anguina*) that leave large pits in their wake yield baskets full of the tubers are taken home and stored; they may be stored for months if the storage space is dry, and can be used when necessary.

Sales

- Yams are primarily used for self-consumption by the communities.

Dioscorea wallichii leaf

ACCESS & CONTROL

Harvesting Decisions:

- The harvest of yams is decided by the season (as mentioned above) and the group that goes out to gather them. As many of the species need to be dug out from deeper tracts some men, too, are a part of the group.
- Whatever tubers are harvested are carried back by the women.

Customs/Ceremonies/Cultural Norms:

- Often, married couples form a team and go together for yam collection.
- Though yams are mentioned in a sacred or religious context in some communities there do not seem to be many rules regulating practices related to their consumption.
- It appears that yam collection is an activity that is initiated by women, led by women, with the men usually tagging along. Menstruating women are not forbidden from yam collection.

Sales:

- Local markets are usually women-dominated and, occasionally, elder women bring cooked yams of different species for sale.

Insights & Learnings

Within the Durwa community, yam-collection is not taboo at any time of the year (though for practical purposes it is collected only during a small part of the year).

Fast-declining knowledge about the various yam species is a cause for concern. This has resulted in a decline of the food-item in the community's diets.

Wild sources of food have usually been ignored by policies, be it for food security or for the broader level of conservation. This can be problematic, considering the role of women in collection of wild-food of any kind.

It needs to be recognized that promoting the collection and consumption of yams/wild foods implies supporting women and their role in family food security. Indirectly, it supports several aspects in the realm of traditional knowledge.

Dioscorea bulbifera

Madhu Ramnath, Coordinator, NTFP-EP India & LEAF, Bastar, Chattisgarh

A **GENDER & NTFP** CASE-STUDY ON

Tendu (*Diospyros melanoxylon*)

SPECIES, USES, & LIVELIHOODS

Maharashtra, India

Tendu leaves are collected primarily for monetary gains and there are no customs and ceremonies around it. Earlier community members would not cut the Tendu tree due to its poor quality as a firewood.

Currently, the realization of monetary benefits has further contributed to its survival. It is regularly trimmed for better growth of leaves for collection for the Beedi industry.

The fruit of the Tendu tree is also consumed by village people, especially children.

GENDER ACTIVITIES

Collection/Harvesting

- Collection of the leaves is done by both men and women, but carried from forest to the village by men.

Storage/Processing

- Processing is near non-existent as the leaves are sold on the same day of their collection. They are only dried before the sale and this is undertaken by both women and men.

Sale

- Earlier the families used to go to the market for selling the leaves, now traders come to the village which reduces the travelling costs and gets the community a better price as well.
- In some villages, major decisions are taken by the Gram Sabha about marketing, selling and pricing.

ACCESS & CONTROL

Harvesting Decisions:

- The access, control, and decision making are collective.

Customs/Ceremonies/Cultural Norms:

- There are some customs and ceremonies surrounding Tendu - one of which is that children with speaking disorders are fed *rotis* (flattened breads) cooked on Tendu leaf, which is believed to remedy the disorder. The Tendu season begins with a *puja* (ritual).

Marketing Decisions:

- Marketing is done by both men and women
- Largely there is passive participation by women in decision making at family level.
- Women's participation is also low in collectives/committees. Out of 11 members in Community Forest Rights Management Committee, there are only 3 women.

Insights & Learnings

Tendu is usually not consumed in the household and collected for the sole purpose of selling. However, there in most villages, people make and smoke *bidis* rolled in Tendu leaf.

The money generated is mostly kept by women. However, decision-making power over income remains largely ambivalent.

NTFP-EP

Case-study contributed by Gramin Samassya Mukti Trust, Maharashtra

A **GENDER & NTFP** CASE-STUDY ON

Mahua (*Madhuca longifolia*)

SPECIES, USES, & LIVELIHOODS

Maharashtra, India

Mahua trees are allocated amongst the villagers and passed down as inheritance within families. Only those belonging to the designated family can collect the flowers from a particular tree.

Mahua is collected in April and all the important decisions pertaining to it are taken by women. They clean the area below the tree prior to collecting Mahua flowers. A sweet-dish is made out of the first fall of the flower, which is regarded as auspicious.

Large scale collection of Mahua begins after the distribution of the sweet amongst the villagers. It is first given to the Gram Sabha head, and the head of the family, who are usually men. It is also believed that the *Devi* (Goddess) lives under the Mahua tree.

Mahua Tree

GENDER ACTIVITIES

Collection/Harvesting

- Everybody in the family participates in the collection of the flower, storage and carrying it from the forests.

Storage/Processing

- Most of the processing (drying) is done by women.
- Women play a decisive role in allocating amounts for self-consumption.
- Knowledge of recipes and cooking of the Mahua flower is primarily held by women.

Sale

- Sale is mostly done by women and there are two SHGs led Mahua Banks operating in the study villages. The Mahua Banks buy the flowers from the villagers and then sell it collectively to traders who come to the village.
- Earlier the villagers used to individually sell the flower. However, now this is streamlined with the presence of the Mahua Banks. In 2019 the Mahua Banks bought the NTFP from villagers at Rs. 25/kg and sold it to traders at Rs. 39/Kg. The Mahua Banks also offer loan facilities to the community.
- SHG members are planning to make products like mahua laddoos, sharbat and sell them on their own.

ACCESS & CONTROL

Customs/Ceremonies/Cultural norms:

- No taboos about menstruation during collection of flowers exist.
- However restrictions on women entering the house and engaging in processing do exist.
- Men occupy a seemingly dominant position, evidenced in 'first respect' offerings made to the four most important members of the village, who are usually men.

Dried Mahua Flowers

Insights and Learnings

The consumption of flowers in households has decreased over time as now it is mostly collected for profits.

Female participation in NTFP management is getting stronger as is evident from the Mahua Bank.

Community Forest Rights and other positive initiatives like Mahila Federation by GSMT has helped sensitize the people about gender-issues and also about their rights.

NTFP-EP

Case-study contributed by Gramin Samassya Mukti Trust, Maharashtra

A **GENDER & NTFP** CASE-STUDY ON

Wild Honey (*Apis dorsata*)

SPECIES, USES, & LIVELIHOODS

Tamil Nadu, India

In Asia, amongst the indigenous feral honeybees *Apis dorsata* or the Giant Rock Bee produces the maximum quantity of honey. Their combs can be seen on high cliff overhangs or on tall trees. Usually, these tall tree-perches are on *Bombax malabarica*, *Dalbergia latifolia*, Terminalia spp. Wild Mango and other riverine trees in tropical forests.

Many indigenous communities harvest honey from these combs in dramatic and brave acts involving scaling great heights. Culturally, harvesting of this honey is specially organised by complex social formations, prayer, ritual, and beliefs. In India, the communities known to specialise in honey hunting are the Alu Kurumba, Jenu Kurumba, Sholiga, Kattunaicken, Cholanaicken, Chenchus and Kolam.

Forest honey was earlier bartered for grains in the Nilgiris, but now has a market. Honey is used as medicine in the Ayurvedic industry in large scale and also for household consumption. Honey has several trace elements, vitamins and sugars not found in any other substance. It is considered good for cold, cough and building immunity.

Both men and women have knowledge regarding the use of honey. It is eaten during the season and small quantities are stored as medicine. Adivasi people prefer the honey of Dammer bees and *Apis florea* for consumption. In *Apis dorsata*, the brood with honey is also eaten during the time of harvest by men. This contains high protein from the larvae.

GENDER ACTIVITIES

Collection/Harvesting
- The collection of wild honey is only done by men.

Storage/Processing
- Both men and women are involved in storage, while processing remains the male members' responsibility.

Sale
- Sale is done by the male members where sale is directed towards cooperatives and producer group value addition centres.

ACCESS & CONTROL

Harvest Decisions:

- Women and men both discuss and determine the honey harvesting season.
- Sometimes women are involved in locating colonies.

Customs/Ceremonies/Cultural Norms:

- Once a prospective hive to harvest is located, the Kurumba people mark it as an indication to other hunters that it is reserved by them.
- Nobody collects honey from already identified hives and marked hives. These are reserved after chanting mantras.
- Usually honey cliffs are assigned to clans and to specific honey hunters.
- For twelve days before the date for honey-hunting, the Kurumba is to go on a fast, including praying, and regular bathing.
- The hunter is also to inform and take along a few trusted persons (men) for the honey-collection. This includes the brother-in-law who will guard the rope ladder.
- It is believed that the hunter while leaving for honey-hunting, should not see any woman, including his wife.
- The hunter is expected to avoid talking and concentrate on prayers alone.
- While climbing the ladder leading up to the hive, the hunter sings songs in praise of the bees.
- First, the brood is cut and eaten. The rest of the comb is collected in tins and squeezed out by hand in the village. After interventions made by Keystone, they cut the comb's mid rib and allow it to drain from a cloth filter.
- The first honey is tasted by the priest of the village, who also performs a ritual of offering pieces of the honeycomb in four directions to the ancestors.

Sale:

The proceeds from the harvest after sale is equally divided amongst the group of men who undertook the harvest.

Legal Aspects:

- Even though honey-collection is legally acceptable, its practice may often get restricted due to conservation concerns put forward by the Forest Department.
- Bee colonies are to be left for bears and for natural pollination services. Any collection of honey in Protected Areas is considered destructive and illegal.

Insights and Learnings

Gender roles are unlikely to change as the activities undertaken are culturally-bound, involve high skill, are risky and difficult.

Women do not seem to be eager on collecting *Apis dorsata* honey. They do collect hives of *Apis cerana* and *Apis florea*, that are easier to access.

Changes can perhaps be made in the post-harvest aspect – where women are involved in the self consumption and sales roles.

They can also be involved in deciding what will be done by the sales proceeds of the honey.

Usually men take part-proceeds of the money from sale of honey and give the rest to women, who in turn use it for household needs.

NTFP-EP Keystone

Case-study contributed by Keystone Foundation, Tamil Nadu

A **GENDER & NTFP** CASE-STUDY ON

Eanth (*Cycas circinalis*)

SPECIES, USES, & LIVELIHOODS

Kerala, India

Locally called as 'Eanth', it is widely found in the hills and valleys of the Western Ghats. It is a small evergreen palm-like tree that grows up to 25 feet height. *Cycas circinalis* is on IUCN's endangered list.

Seeds are mainly collected for food by the indigenous community people. The seeds cannot be directly consumed as it contains a starch, a toxic glucoside which is removed by repeated washing. The seeds are believed to possess aphrodisiacal properties.

Barks and seeds are used as a poultice for sores and swellings.

Leaves are edible and the indigenous community people especially the Kattunaickan, across the Nilambur valley, enjoy food made from *Cycas* leaves. The tender leaves relieve flatulence and vomiting.

Male cones are also widely harvested in several parts of Kerala. Some farmers in Kerala have traditionally been using the male cones as a natural pesticide in their paddy fields.

Pith is harvested and sold in the markets. Sago, like that obtained from palms is extracted from the trunk when the plant is about 7 years old before fruiting. The pith is also believed to possess aphrodisiacal properties.

The seeds are roasted and powdered to make porridges, pancakes, steamed *Puttu* or leaf wrapped *Ada*, or simply added as chunks into meat curries. Black tea is a favourite accompaniment. This NTFP is important for both the Kadar and Kattunaickan community.

Powdered *Cycas* seeds

GENDER ACTIVITIES

Storage/ Processing

- The hard skin of the seed is removed and stored. Storing on a heated bamboo surface above the wood stove is part of the processing. This way the seeds can be preserved for several months.
- The next step involves washing the seeds (tied in a sack) in running stream water for 7 days. Alternatively, the seeds are cleaned repeatedly for 7 days in a large bucket/ drum of water. This is done to get rid of the '*Kattu*' or 'negative sediments' as the neurotoxins present in the seed are called.

(Note: All along the harvest and processing stages, the Kadars keep children away from the fruits for if consumed accidentally, it can cause severe nausea and headache.)

- Both Kattunaickan men and women carry the products from the forest.
- The cleaning, processing, drying and storing are done by the women. Both men and women braid a bamboo structure to dry the seeds on – this is primarily the responsibility of women.
- The seeds are stored in sacks and powdered for household consumption. These jobs are also done by women.

Collection/Harvest

Both men and women of Kadar and Kattunaickan communities harvest the fruits from the plant, with the carrying largely done by men and women taking on a supportive role.

Kadar

- Almost 20 years ago, Kadars used to sell *Cycas* at local markets. Currently the NTFP is used largely for subsistence alone. In August 2018, the Kadar in Anapantham village sold their first batch to RRC's project on enterprise building at Rs. 180 per kilo.

Kattunaickan

- The Kaatunaickans sell the *Cycas* seeds at the market either in raw form or after drying. The raw seeds are sold at a rate of Rs. 15 to private traders. Dried Seeds are priced from Rs. 100 to 150/Kg in the market. There is high demand for *Cycas* seeds in the local markets of Kerala.
- The seeds are purchased only by local traders. Community members receive between Rs. 80 to 120/kg from traders for dried seeds.
- Each Kattunaickan family manages to earn about Rs. 20,000 per season.
- There are no government institutions engaged in the collection of harvested seeds in the study area.

Sale

ACCESS & CONTROL ASPECTS AMONG KADARS

Harvest Decisions:

- Men and women play equal roles in decision-making; once ripe fruits are noticed - the harvest plan is made. Most of the time only a certain proportion of what is available in the forest is harvested. Young fronds of *Cycas* plant are also harvested and sautéed into a delicacy in Kadar families.
- As of now, fruits harvested by the Kadar are bought by the projects run by NGOs and additional wages are given to the group of people who engage in de-husking the seed.

Customs/Ceremonies/Cultural Norms:

- No ritual or ceremony is practised in this community for any NTFP except for when harvesting honey from *Apis dorsata* hives.
- Taboos around menstruation is almost non-existent in their community today. In earlier times, women did not engage in domestic work during menstruation.

Monetary decisions:

- Traditionally, women kept the money after selling NTFPs and gave some to men as and when required. In recent years, due to the rise in alcoholism, men tend to misuse the earnings, and nothing remains with women for the household.
- However, there are rare cases where both husband and wife get their share.

Sales Decisions:

- Community has no say in the market price.
- Kadar men also carry their harvest to the nearest market for sale in case there is a delay in VSS processing.
- This is also because they get a better price at the regular market, as compared to the rates of the VSS.

Cycas Seeds

Insights and Learnings from Kadars' study

The Kadar people appear to have a flexible gender based partition of tasks.

Almost 18 different NTFPs are collected by Vana Samrakshana Samitis (VSS) of the Forest Development Agency (FDA) and this is a reasonable motivation for the people of Anapantham to engage in NTFP harvest throughout the summer months, almost until June when the monsoon hits their land.

Insights and Learnings from Kattunaickans' study

In the opinion of persons interviewed in over 80% of families, women play a proactive role and managed family needs.

Almost 90% of the processing activities of *Cycas* seeds are done by the women. This trend is there for other NTFPs too.

Decision making about money from the sale was usually done by men.

NTFP-EP Keystone

Case-study contributed by RRC, Kerala & Keystone Foundation, Tamil Nadu

A **GENDER & NTFP** CASE-STUDY ON

Seemar Pillu (*Phoenix Spp.*

SPECIES, USES, & LIVELIHOODS

Tamil Nadu, India

Seemar is one of the naturally-growing species found in forest flatlands, usually without a tree cover. Primarily, commercial harvest is of the leaves, but its fruits and tubers are also used locally.

The richness of the yield is dependent on rains. Interestingly, it also serves as an ecological indicator of paucity in rains. A reddish-brown colour of the leaves with spots indicates less rainfall during the season. This reduces its marketability.

Likewise, presence of certain grass varieties such as Vaazhai Pillu, Kozhi Pillu, Garike Pillu, Anchi Pillu etc. in its close vicinity affects its quality positively. In the absence of these grasses, the leaves turn brown and spotted.

Animals such as gaurs, sambar deer, elephants, cows, and goats feed on its leaves, and porcupines eat the tubers.

Seemar leaves are bundled and made into brooms.

Seemar tuber is usually found one foot beneath the ground and is used both as food and medicine for indigestion amongst children and adults. It can be eaten either raw or after cooking. The seed of Seemar used to be common in the diets of the older generation.

Seemar fruits (grow once in six months) and tubers are used in making *Sambhar*.

GENDER ACTIVITIES

Collection/Harvesting

- Men and women both harvest Seemar and usually go in same gender groups or as mixed groups to the forest. The amount harvested by men is more than that collected by women. Men usually carry more load on their heads.

Storage/Processing

- Although both genders are involved in harvesting, male and female groups sometimes keep their harvested bundles separately for drying.
- When a woman is pregnant her husband takes the grass from the forest back to the house, and the wife smoothens the leaves by removing the thorns off the leaves.

Sales

- Marketing is done by Village Forest Committees to contractors.

SEEMAR PILLU - Keystone Foundation

ACCESS & CONTROL

Harvest Decisions:

- Decisions regarding *Seemar* harvest is taken by the Forest Department officials, Village Forest Council (VFC) together with villagers.
- Women rarely voice their opinions in VFC decisions.
- Both women and men decide upon which areas to harvest from.

Customs/Ceremonies/Cultural Norms:

- The forest is considered to be a *Vana Thaayi* (Forest Mother) for whom harvesters perform a ritual before the collection
- Women avoid harvesting during menstruation.
- Customary restrictions on quantity of *Seemar*-collection exist.
- Only matured grass is to be collected.

Monetary decisions:

- Money is handled by both men and women in the family.
- The money is usually spent on buying household essentials. However, in some cases men spend part of the money on alcohol.

Marketing Decisions:

- VFC is the main functional body through which the marketing is done. Forest Department is involved directly in it.

Insights and Learnings

Availability of Phoenix grass appears to have moved away from close vicinity to deeper forest-tracts.

Phoenix grass is largely exclusively collected as a source of income.

Villagers would prefer to engage in value-addition of *Seemar* at the village level itself and then market it, rather than selling it at bulk rates.

It is a skill to tie the Phoenix grass broom with locally-available plant fibers

NTFP-EP Keystone

Case-study contributed by Keystone Foundation, Tamil Nadu