



WILD FOOD

OF THE PAHARI KORWA PEOPLE

OF CHUI PAHAR, DHARAMJAYGARH BLOCK, RAIGARH DISTRICT OF CHHATTISGARH

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<https://keystone-foundation.org>; kf@keystone-foundation.org

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Text & Content : Rohan Mukerjee
Contributors : Naresh Biswas, Jaykumar Yadav, Bhawru Ram Hansda, Ramcharan Korva
Editor : Snehlata Nath, Anita Varghese
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NOTE FROM THE AUTHOR

The food systems of indigenous communities across the world have historically been characterised by a high degree of self sufficiency with regards to procuring and/or producing food in the regions that they inhabit. In India, many indigenous communities across the country continue to have a rich and diverse diet. They procure a variety of wild and uncultivated food from the forest and other ecosystems in which they live. Several of these communities still carry out a variety of traditional agricultural practices, uniquely attuned to their environments, which provide them with a rich diversity of crops. This diverse diet has helped ensure the health and nutritional security of these communities. The traditional food systems and traditional knowledge of the forest and other ecosystems they live in, has enabled many indigenous communities to overcome, cope with and adapt to harsh and challenging environmental and climatic conditions and events.

The Using Diversity (UD) Network was established in 1996 to promote agricultural biodiversity and stress the importance of uncultivated foods for Adivasi people. The UD network enables civil society groups and community leaders to revive and promote uncultivated foods and traditional mixed cropping systems in different parts of India. The UD Project (2017-20) was aimed at promotion, conservation and sustainable use of traditional agriculture, indigenous crops, crop genetic resources and uncultivated foods for enhanced

food and nutritional security of marginalised Adivasi communities across India. The project was implemented through partner NGOs, CBOs and individuals in different parts of India.

Alongside implementation of a variety of different initiatives like the promotion and establishment of community seed banks, revival of cultivation of traditional crops and planting of uncultivated food plant and trees; the project has undertaken participatory research focussing on the principal thematic areas of the UD network. This series of papers is aimed at sharing the findings of the research carried out in different areas, long term research of partners and experiences working and learning from these indigenous communities.

Wild food still constitutes an integral part of the diet of Pahari Korwa villagers living in the forested hills of Dharamjaygarh Block, Raigarh District, Chhattisgarh. They collect a variety of diverse wild foods that range from wild tubers, extracted from deep underground, for which they often trek long distances through dense forests; to green leafy vegetables that grow around their homestead plots. This paper provides a detailed analysis of the different wild foods currently consumed by the Pahari Korwa people in the villages of Dharamjaygarh Block. The paper and its' findings are based on inventories of wild foods compiled through participatory research with men and women villagers of different villages; consultations and discussions with villagers; observations while

accompanying villagers for wild food collection in different seasons; the literature, knowledge and experiences shared by Naresh Biswas, the Chief Functionary of Nirman (UD partner NGO).

The aim of this paper is to provide an insight into the rich diversity of wild foods still collected and consumed by the Pahari Korwa; the multitude of benefits wild food provide indigenous communities like the Pahari Korwa; and their continued significance especially in the wake of challenges posed to food availability as a result of Climate Change and associated natural disasters like droughts. The paper also explores current changes and challenges being experienced by the Pahari Korwa with regards to the availability and consumption of wild food and presents and encourages discussion on potential mitigation strategies and initiatives to address issues being faced. Most of the themes covered here are applicable to many other indigenous communities who still depend on a variety of wild food from their forest ecosystems. Our objective is to highlight the benefits of wild food to the communities for whom wild food has been an integral part of their diets; the threats to the ecosystems that ensure the availability of a rich diversity of wild food and promote safeguarding, revival and adaptation of wild food collection and consumption practices alongside protection, conservation and community led management of the associated forest ecosystems.

Rohan Mukerjee

Introduction

The Pahari Korwa are an indigenous people living principally in the five districts of northern Chhattisgarh. Dharmajaigarh Block of Raigarh District, where this study was carried out is also home to 22 Pahari Korwa villages. Their villages are in the hilly tracts with abundant rainfall and rich and biodiverse forests. Their agricultural practices are varied and range from shifting cultivation (known as bewara or ahal), fields with one crop known as ekal kheti, and homestead plots, known as badi. Each of these three types of agriculture focus on some crops (though there are overlaps) and range from those used entirely for self-consumption to those grown primarily for the market.

Along with cultivation, the Pahari Korwa also supplement their food with what they find in the wild. Wild foods of the Pahari Korwa include a variety of wild greens, tubers, fruits and seeds, flowers, mushrooms, honey and insects (mainly hornet larvae), and different aquatic species from rivers, streams and other water bodies. Several of these wild foods were also reported to have medicinal properties. Wild foods help the Pahari Korwa people supplement their cultivated food stocks especially in periods of food scarcity and on the whole, they make a vital contribution to their health and nutritional requirements.



Sirdahi, Chui Pahar, Dharamjaygarh Block, Raigarh District, Chhattisgarh

Methodology

This investigation of the wild food of the Pahari Korwa people of Dharamjaygarh Block is largely based on an inventory of Wild Foods of the Pahari Korwa compiled through a participatory exercise with a group of men and women villagers of the six hill villages of Chui Pahar in Kendha panchayat of Dharamjaygarh Block, Raigarh District, Chhattisgarh. This has been supplemented by additional wild food surveys and inventories in other Pahari Korwa villages; a review of reports, books and literature shared by Naresh Biswas, the Chief Functionary of Nirman an organisation working with indigenous communities in Madhya Pradesh and Chhattisgarh; interviews with Naresh Biswas on wild foods of the Pahari

Korwa; field visits to villages and forest areas across the Dharamjaygarh block in different seasons to observe wild food collection practices; community consultations and informal interviews with villagers.

This paper will first provide general findings about the different categories of wild food – plant based, fungi, insects and aquatic species - consumed by the Pahari Korwa people. It will then explore each category of wild food in greater detail. The paper concludes with a summary of the challenges facing the Pahari Korwa with respect to their wild food and explores strategies being implemented to overcome these challenges and promote the revival of wild food availability as well as consumption by the Pahari Korwa.

General Findings

Chui Pahar in Dharamhaygarh Block of Raigarh District is home to 6 Pahari Korwa villages all of which fall under Kendha Panchayat. These villages have limited access to markets and still have poor road access. The residents continue to travel mostly by foot from their villages to the nearest main road which starts from Kendha. The area still has rich forest cover which provides the villagers with access to a multitude of different wild foods. The overall availability and diversity of wild food in Chui Pahar was found to be higher than other Pahari Korwa villages in the block especially those at lower elevations and with better market access.

The inventory carried out with the villagers of Chui Pahar revealed that there are currently 145 different sources of wild and uncultivated food belonging to the following categories:

i. Plant based – these include a variety of wild green leafy vegetables which comprise wild leaves, tender shoots and stems, and entire plants; fruits and seeds; flowers; tubers and roots; and bark. Plant based wild foods listed included uncultivated species like mango, tamarind and jackfruit and accounted for 94 species.

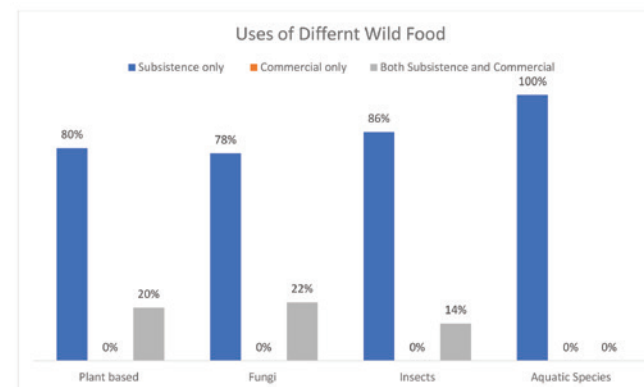
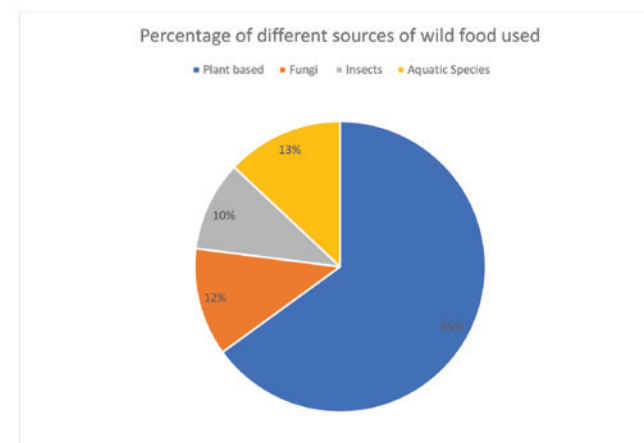
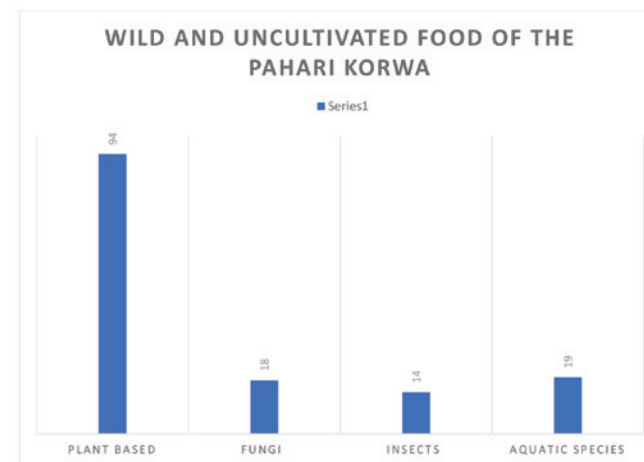
ii. Fungi – these include a variety of wild mushrooms and fungus mostly found in the monsoons. Wild fungi accounted for 18 different varieties.

iii. Insects – these include mainly bees and hornet larvae. The villagers reported that they collect and consume honey, combs and larvae of 14 insects.

iv. Aquatic species – the Pahari Korwa consume a variety of fish, snails, crab, prawns and other aquatic species from rivers, streams and other water bodies. 19 different Aquatic species were reported to be consumed.

Plant based wild and uncultivated food are the major source of wild food and account for 65% of all sources of wild food across the 4 different categories.

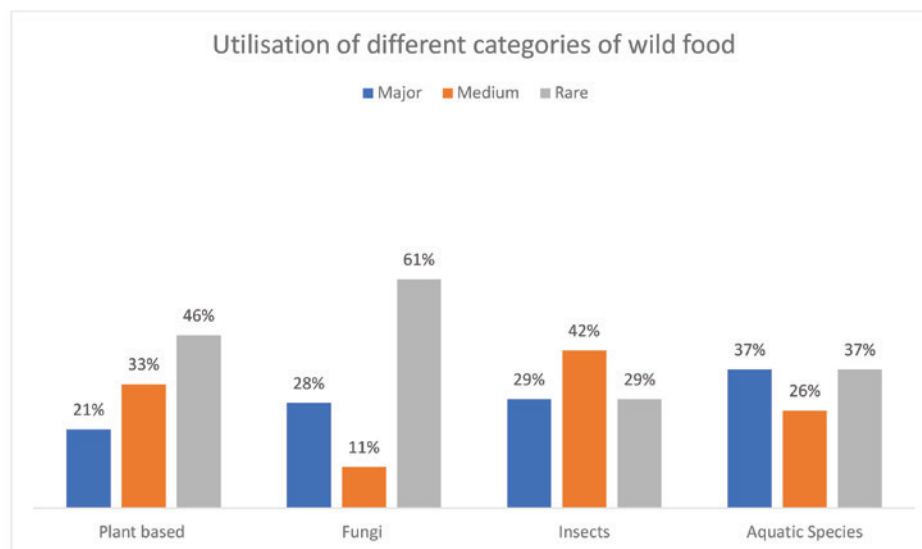
Purpose of wild food collection: Wild food was reported to be collected largely to meet subsistence needs. Only a small percentage of wild food across all categories cater to both subsistence needs and commercial demand, being sold to traders or in local markets or bartered for other produce. The fact that wild food primarily caters to subsistence needs and have little commercial value often results in the contribution they make to the Pahari Korwa, in terms of health and nutritional security, being undervalued or completely ignored especially when planning livelihood strategies and development programs. A case in point being plantation drives by various government departments as well as civil society organisation, which do not include vital local wild food plant



and tree species. This often negatively impacts their survival, protection and conservation.

Availability status of different categories of wild food: It was reported that 50% or more of wild foods of different categories were still available in abundance. This meant that the villagers found it easy to access these wild foods in the seasons that they are available. Less than 30% of wild foods of different categories were reported to have low availability, which meant that they are increasingly hard to find. These findings could be indicative that the villages of Chui Pahar still have access to good quality diverse forests which provide them with a variety of different wild food.

Degree of utilisation of different kinds of wild food: While the Pahari Korwa villagers in Chui Pahar listed 145 different sources of wild and uncultivated food not all of them are a regular part of their diets. While a few wild foods are



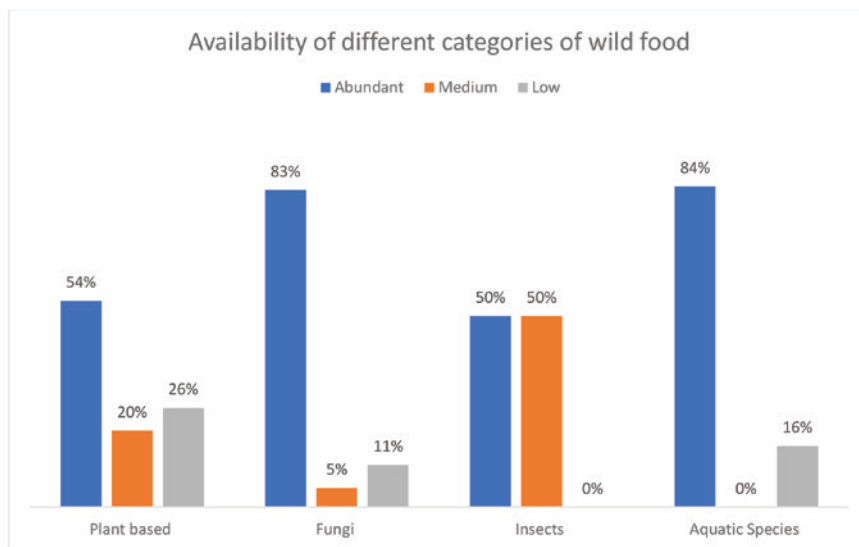
consumed on a regular basis, others are eaten occasionally, while some are only consumed rarely. The degree of utilisation of different wild foods has been classified as follows –

i. Major – a regular part of the Pahari Korwa diet.

ii. Medium – consumed occasionally and not on as regular a basis as the major wild foods.

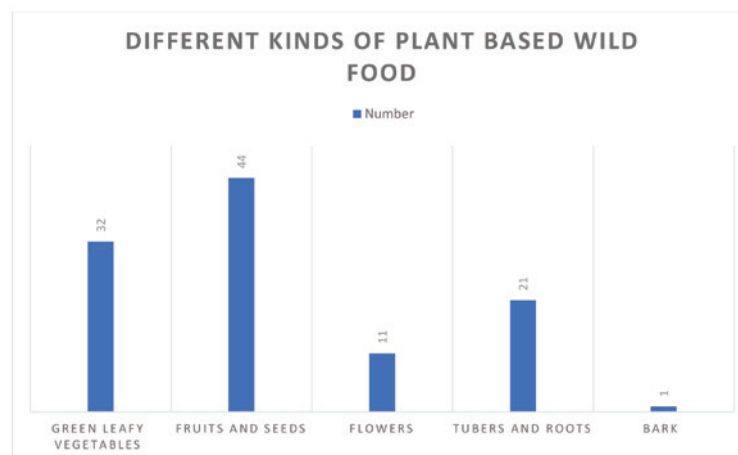
iii. Rare – consumed sporadically.

It was reported that for plant based wild food, the single largest category of wild food, only 21% of the different varieties were consumed regularly while a majority (46%) were only consumed sporadically. Similarly, for the other categories of wild food, a majority of varieties were consumed either occasionally or sporadically. There are a variety of different factors which could account for the focus on only a handful of wild foods with include taste preference – the Pahari Korwa relish some wild food more than other; medicinal value (either to help ward off diseases or help cure them); ease or difficulty in collecting and accessing the wild food; and availability. Changing patterns of consumption could also be a factor.





Patharchatti Adha that grows on rock faces adjoining streams



Plant based wild food

Plant based wild and uncultivated food constitute an important part of the Pahari Korwa diet. They accounted for 115 different kinds of food from 94 different species.

The different kinds of plant based foods based on parts used included –

Greens leafy vegetables – include leaves, tender stems, shoots and entire plants and account for 32 different kinds of wild food. Leaves are probably the most consumed plant part and they are mostly cooked to make a sabji (vegetable preparation) and some, like Matra Amtha / Saroti which is sour, are used as ingredients to make a variety of different preparations. Green leafy vegetables help build immunity against many diseases and 9 of them were reported to have medicinal properties. The Pahari Korwa people also dry some leafy vegetables for future consumption. Green leafy vegetables are primarily collected and prepared by women.



Budhra Boer

Tubers – play a vital role in ensuring nutritional security of the Pahari Korwa. In periods of acute food shortages like famines and droughts, tubers are one of the major wild foods that help keep them alive. There are many different ways of consuming tubers – raw, roasting, boiling, making rotis and vegetable preparations. The collection and extraction of tubers is largely carried out by men.

Barks – one variety of bark was reported to be used which also had medicinal properties.



Pitharu Munde collected by villagers of Sirdahi

Fruits and seeds – which are the largest category accounting for 42 different fruits and seeds. Most of the fruits are consumed uncooked, while a few are cooked to make vegetable preparations. Some seeds like Sehar are consumed while a number are used to extract edible oil both for subsistence needs and to meet commercial demand. 3 fruits and 5 seeds were reported to have medicinal properties. Fruits and seeds are collected by both men and women. Children also collect and consume a variety of fruits.

Flowers – 11 different flowers are collected and consumed. Mhu or Mahua is probably the most important flower and also one of the major wild foods, being used to prepare as many as 12 different traditional preparations. It is also used and sold for the preparation of liquor and as a result attracts high prices and is a commercially valuable NTFP. Mahua was also reported to have medicinal uses as well. Flowers are primarily collected by women.



Drying of Mhu/Mahua flowers in Chui Tola village

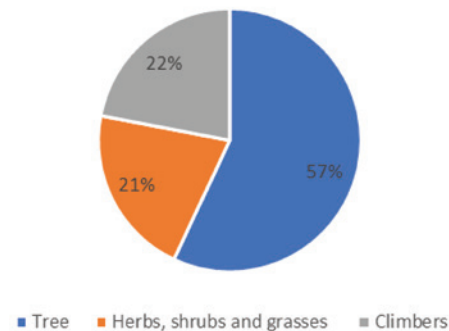
Sources of plant based wild food - Trees are the single largest source of plant based wild food with the Pahari Korwa deriving a variety of leaves, flowers, fruit, seeds and bark from them. Herbs, shrubs and grasses are an important source of green leafy vegetables. Climbers provide the Pahari Korwa with rich diversity of tubers as well as some seeds and fruits.

Habitats where plant based wild food are found - While some green leafy vegetables, fruits and seeds are found near habitation areas and in open forests, a majority of plant based wild food are found in what the villagers described as ghanna jungle or dense forests. This is indicative of the fact that forests are a rich source of a variety of plant based wild foods for the Pahari Korwa people residing in the villages of Chui Pahar.

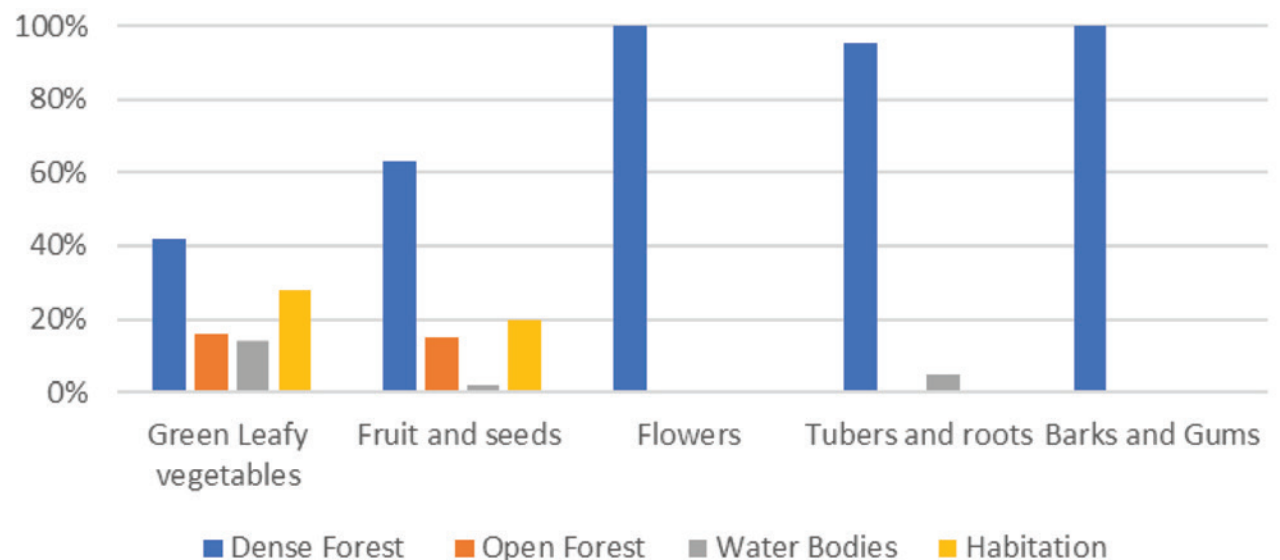
Availability of plant based wild food - A majority of the different green leafy vegetables; fruits and seeds; and flowers are found in abundance in Chui Pahar with around 60% of the different foods in each of these 3 categories found in abundance. This abundance of a variety of plant based wild food could be indicative of the fact that Chui Pahar still has considerable areas of good forest cover which are home to several wild food species. However, a majority of the tuber varieties (57%) were reported to have low availability in the area. Villagers felt that the soil conditions prevalent in Chui Pahar are probably not conducive to the growth of a number of tuber varieties resulting in their low availability. These conditions are not prevalent in all Pahari Korwa villages of Dharamjaygarh block.

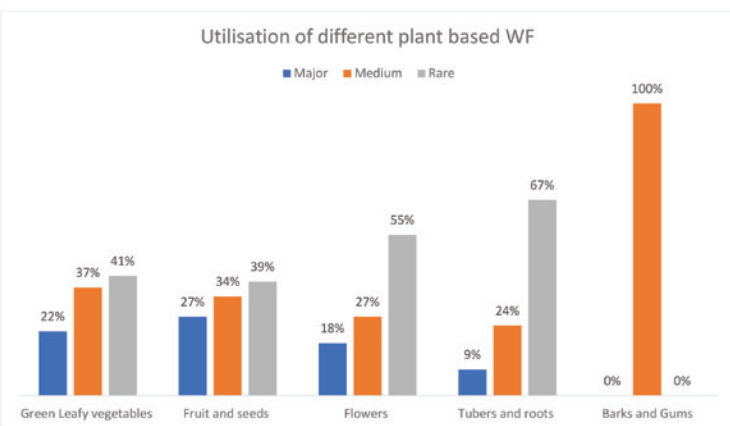
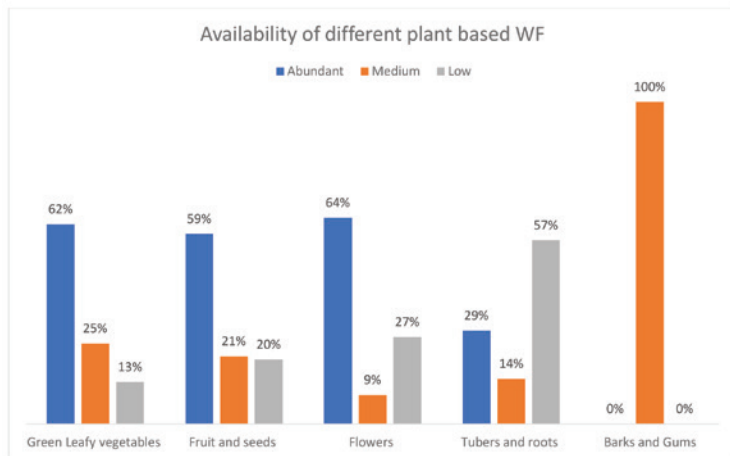
Amanara and Ganeshpur villages, which are at a lower elevation, reported the availability of a variety of tuber varieties in abundance.

Sources of Plant based wild food (%)



Habitats where different plant based WF are found

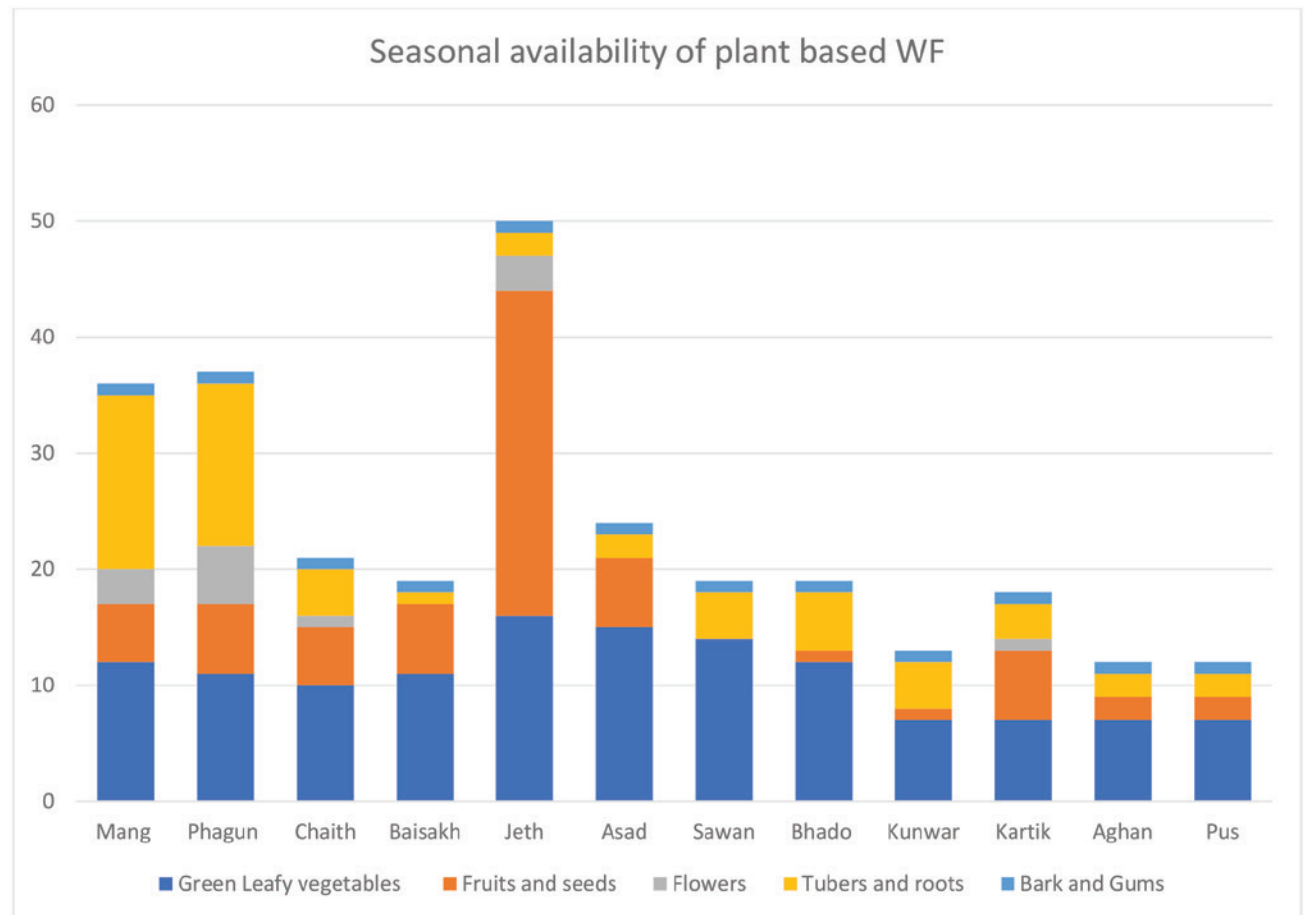




Degree of utilisation of plant based wild food - Only a few varieties of the different kinds of plant based wild foods are a regular part of the Pahari Korwa diet, with the remaining varieties being consumed occasionally or sporadically. Along the lines of the low availability of tubers in Chui Pahar, the consumption of a majority of tubers (67%) was reported to be only sporadic, with only 2 tubers being a regular part of their diets.

Seasonal availability of plant based wild food¹ - Plant based wild food, of some variety or the other, are available to the Pahari Korwa throughout the year. In fact, in the peak of summer, when cultivated food stocks are diminished the high availability of plant based wild food, especially green leafy vegetables, fruits and seed, are a vital source of sustenance for the Pahari Korwa. The low availability of plant based wild food in the monsoons is compensated by the availability of fungi.

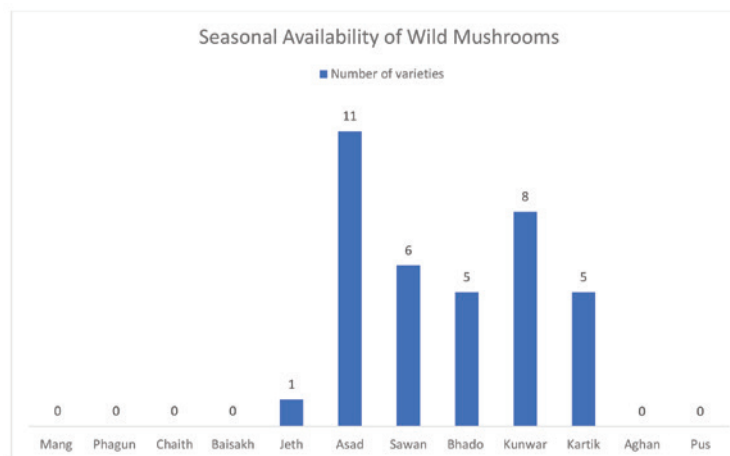
1. Please refer to Annexure 1 for Hindi months and corresponding dates of the English Calendar.



Fungi based wild food

With the onset of the monsoons in Asad a variety of mushrooms are available in Chui Pahar. The Pahari Korwa people of Chui Pahar reported that they consume 18 different varieties of mushrooms and during the monsoon months some variety of mushroom or the other is consumed in almost every meal. 5 varieties were reported to be consumed regularly during the monsoons and 4 varieties were also sold commercially generating a valuable additional income. Some varieties of mushrooms are also dried, in order to be consumed over a longer period of time. Mushrooms are mostly collected by women and they have an intimate knowledge about when and where to find different varieties of mushrooms.

Mushrooms are rich sources of Calcium, Copper, Selenium, Potassium, B Vitamins and Antioxidants. Mushrooms are functional foods and boost immune system; they are prebiotic nourishing good bacteria in the gut. They contain lectin proteins that bind to cancer cells marking them for destruction by the immune system. Mushrooms maintain the forest food web through mycelia and breaks down organic matter and rocks creating soil.



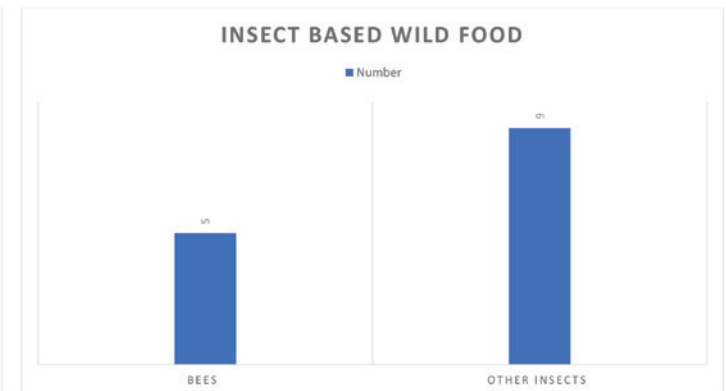
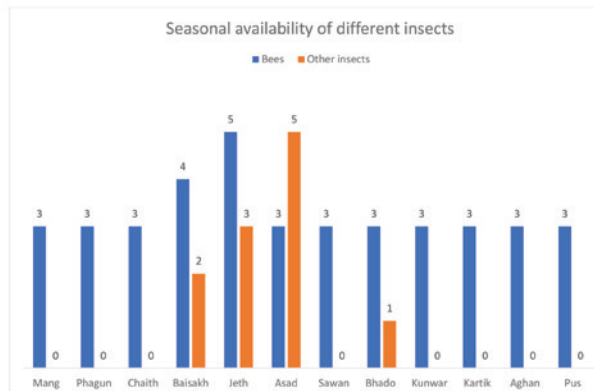
Insects

14 different insects were reported to be a source of wild food. Of these 5 were different varieties of bees whose honey and combs are collected and consumed. The honey of 2 bees is also sold commercially. The other insects were mostly hornets and their larvae are eaten, and this is a rich source of protein and nutrients. While all the bees are available in abundance the other insects had mostly medium availability. While the honey of one of the bees is consumed regularly, the other bees constitute an irregular or sporadic source of wild food. The larvae of 3 insects is consumed on a regular basis. While honey is mostly extracted by men, other insects are largely collected by women.

Seasonal availability of insect based wild food – while honey of some variety of bees or the other is available throughout the year the peak months are Baisakh and Jeth just before the onset of the monsoons. Other insects are mostly found in 3 months – Baisakh, Jeth and Asad, with the onset of the monsoons in Asad marking peak availability.



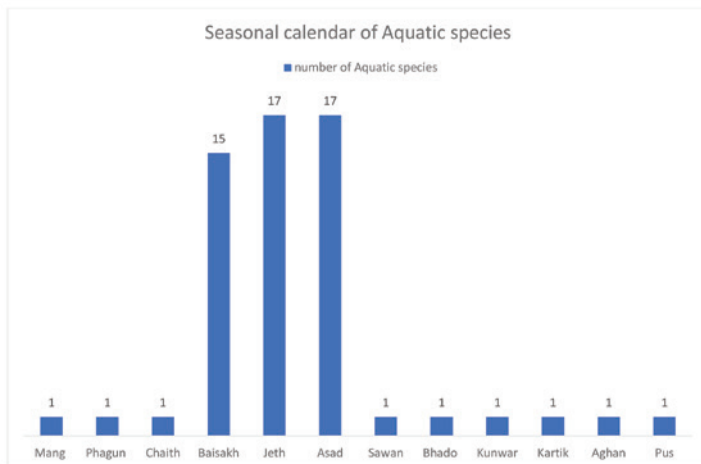
Tumla



Aquatic species

The Pahari Korwa also carry out fishing in rivers, streams and other water bodies. Fishes, snails, crabs, prawns, molluscs, and other aquatic species account for 19 different species. While fishing is carried out throughout the year Baisakh, Jeth and Asad mark the peak fishing season, with the frequency of fishing being much lower in other months. In the height of the monsoons, in Bhado, they do not carry out much fishing as the water level is too high.

While not a major part of the Pahari Korwa diet, aquatic species when available are an important source of protein. The majority of aquatic species (16) were reported to be available in abundance and 7 species are consumed regularly. Fishing is carried out by both men and women.



Conclusion and the way forward

While wild food still forms an integral part of the Pahari Korwa diet in villages of Dharamjaygarh Block there is a gradual decline in both availability and utilisation of wild food. Some of the key challenges in this regard are as follows:

Deforestation, Degradation and impacts of climate change – As a result of increased intensity of resource use and agricultural practices; reduced fallow periods and corresponding spread of weedy and invasive species there is a steady increase in deforestation and degradation of the region's forests and natural resources. This is resulting in a gradual decline in availability of a variety of wild and uncultivated food. Climate change is also having an impact on several species resulting in reduced or erratic fruiting and other changes in ecological patterns and phenomenon. The fact that Amla trees have not been fruiting for over ten years and fruiting of Bhelwa has reduced and become erratic could be a result of climate change.

Changing food preferences - As a result of greater interaction with other communities and the availability of external food items like rice, soya bean, flour, mainstream vegetable through the public distribution system and the market, and increased cultivation of paddy the Pahari Korwa people are moving away from traditional foods both cultivated and wild. As a result, they are less interested in collection of wild food especially the ones that are more labour intensive like tubers and they also losing the

traditional knowledge of wild food collection and processing. The problem is particularly acute among the younger generation, especially children. As children are increasingly consuming rice and pulses mostly provided through the Mid Day Meal (MDM) scheme in their schools their dietary diversity is reducing, and they are no longer liking a variety of wild and cultivated traditional food items. The removal of a rich diversity of food sources from the diets of the Pahari Korwa, especially their children is threatening their health and nutritional security.

In the face of these challenges there is a need to build an awareness about the benefits of wild and build a sense of pride around the Paharia wild food tradition. Several workshops, training programs and area level wild food exhibitions are being conducted across the region. Village elder led awareness programs on wild and uncultivated food are being held in village schools across the region. In addition, dialogue has commenced at the school, district, and state level to include wild and uncultivated food, especially green leafy vegetables in the Mid Day Meal for school children. Aimed at securing rights to their forests, villagers are being supported to file habitat rights (villages of Chui Pahar) and community forest rights (CFR) claims under the provisions of the Forest Rights Act (FRA). Planting of a variety of uncultivated and wild food trees and plants is also being carried out in forest areas, commons, and habitation plots.

Sr. No.	Hindi Month (Name used locally in Pahari Korwa Areas)	Hindi Month (As per Hindu Lunar Calendar)	Number of Days	Corresponding English Calendar dates
1	Mang	Magha	30	January 21 to February 19
2	Phagun	Phalguna	30	February 20 to March 21 / 20*
3	Chaith	Chaitra	30/31*	March 22 / 21* to April 20
4	Baisakh	Vaisakha	31	April 21 to May 21
5	Jeth	Jyaistha	31	May 22 to June 21
6	Asad	Asadha	31	June 22 to July 22
7	Sawan	Shravana	31	July 23 to August 22
8	Bhado	Bhadra	31	August 23 to September 22
9	Kunwar	Asvina	30	September 23 to October 22
10	Kartik	Kartika	30	October 23 to November 21
11	Aghan	Agrahayana	30	November 22 to December 21
12	Pus	Pausa	30	December 22 to January 20

Annexure 1: Hindi Months and corresponding dates of English Calendar



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