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SURVEY OF TRADITIONALLY USED WILD EDIBLE PLANTS IN MANDVI TALUKA OF SURAT DISTRICT, GUJARAT

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ABSTRACT
This study explores the vital role of wild edible plants in the diets of indigenous communities in Mandvi Taluka, Surat district. Selecting eight villages based on their proximity to the forest, the research uncovers the nuanced relationships between geographic location and traditional plant use. These plants, integral to daily meals, offer essential nutrition and contribute to the local health system. Additionally, they play a crucial role in addressing hunger and food security challenges. The findings emphasize the need to preserve and promote these wild edibles for their cultural significance and potential contributions to a resilient local food system.

Keywords- Wild edible, Mandvi taluka, ethanobotany, Indigenous community

INTRODUCTION
India is one of the richest countries in Asia due to its temperature and geographical location. In India and the Asia in terms of flora, thousands of wild edible plants have been utilized as a source of food, healthcare, and material sustenance in this region of the world since long before recorded history, and they have a deep link with human livelihood. Misra S et al., 2008. Although wild species are known to have played a major role in the regional economies of various parts of the world, edible plant species may have diverse purposes in different nations as well as in different nations as well as in different portions of the same country Dogan, et al., 2004. In this sense, the term “wild” refers to species that are not purposefully developed and maintained by people, including those that are lightly managed to prevent overgrowth or overharvest. This covers both native and exotic plants, regardless of habitat protection status. Tuner NJ et al., 2011.

Mandvi taluka is a region located in the Surat District of the Indian state of Gujarat. This is known for its diver’s geographical features. The Tapti River, flow through the Surat district and is an important water sources for the region. The region’s economy is largely based on agriculture. The fertile land in the area allows for the cultivation of various crops, including Rice, sugarcane and vegetables. The vegetation in Mandvi taluka is typical of the Gujarat region that includes a mix of deciduous forests, grasslands, and cultivated lands.

Mandvi taluka boasting two distinct forest ranges- the south and north ranges serves as a unique setting for exploring the dynamic relationship between indigenous communities and their natural environment. The south and north range of Mandvi taluka forest provides food resource such as fruits, seeds, tubers, shoots, and so on contributing significantly to the daily meal of the locals, particularly those living near forests and other rural area. Indigenous communities are already using wild edibles as food in their day to day lives or in time of scarcity. Recently, the importance of ethno botanical research in capturing ancient traditional folk knowledge as well as discovering new plant sources of food, medications and so on has been stressed. Jain, S.K. (2010), Jain, S.K. (1991).

MATERIAL AND METHODS
Studies were carried out among Chaudhari, Vasava, communities of the Mandvi taluka of Surat district of Gujarat. In order to collect knowledge on food plants surveys were carried out among these indigenous people that they had historically utilized. The plant was identified by comparing specimens with literature (Cooke, A.T. 1903, 1985, Shah, 1978) available in the library of the Botany Department, Gujarat University, the Serenity Library,

Ahmedabad and with the help of taxonomic experts of the university. Indigenous marketplaces or weekly haats were also visited to investigate the plants and plants products sold there. Because the region's rural people rely heavily on wild plants and plants products for survival, local markets are rich with wild veggies and fruits. These marketplaces are hosted on a regular basis in villages such as Saleya, Sathvav, Balethi Haat's. These weekly haats are used as a great source of knowledge. Wild vegetables and fruits, as well as a range of cultivated crops and animals, are the most prevalent commodities in these Indigenous marketplaces.

STUDY AREA

Mandvi taluka is situated in the southern part of the Suart district in Gujarat. Latitude and longitude coordinates of Mandvi taluka are 21.5500 N and 72.9333 E. The topography of Mandvi taluka is characterized by a mix of flat plains and hilly areas. Taluka has tropical climate, characterized by distinct wet and dry seasons, hot summers; during this period, temperatures can soar, with daytime temperatures often exceeding 35°C and occasionally reaching above 40°C. A monsoon season with heavy rainfall, the average annual rainfall in the region can vary, but it typically ranges from 800 to 1000mm or more. Winters in Mandvi Taluka are relatively mild and dry. The temperatures during this season are cooler and more comfortable, with daytime temperatures ranging from 15°C to 25°C.

Eight sample villages were strategically selected based on their geographic proximity to the forest, with some situated in the heart of the forest and others in its periphery, Karanjvan, Khatradevi, Tarapur, Katkuva, villages are from North range of Mandvi forest and Magatra, Karutha, Kevdi, Ghantoli villages from South range of Mandvi forest division. This villages selection based on they are near to forest and totally in forest area, population regularly consuming this edibles at least one meal per day.

RESULTS AND DISCUSSION

This research delves into the rich traditional knowledge of wild edible plants among the indigenous communities residing in Mandvi taluka. Also sheds light on the intricate interplay geography and tradition, as villages located in different positions relative to the forest exhibit varied reliance on wild edible plants. Indigenous communities consume edible plants in either raw or prepared form. The current study documents 27 wild growing plants, together with their family, local name, sections utilized and method of use, that are consumed whole or in part by the locals (table 1).

Table no- 1 wild edible plant list

Sr	Plant Name	Family	Local Name	Plant part used
1	*Cordia dichotoma*	*Commelinaceae*	*Gunda*	*fruit*
2	*Aegle marmelos*	*Rutaceae*	*Bilu*	*Fruit*
3	*Argyreia nervosa*	*Convolvulaceae*	*panjo*	*Leaves*
4	*Asparagus racemosus*	*Liliaceae*	*Shatavri*	*Root*
5	*Alangium salvifolium*	*alangiaceae*	*akhna*	*Fruit*
6	*Boerhavia difusa L.*	*Nyctaginaceae*	*Pathiru bhaju*	*Leaves*
7	*Borassus flabellifer*	*palmaceae*	*Tad*	*Fruit*
8	*Diospyros melanoxylon*	*Ebenaceae*	*Timru*	*Fruit*
9	*Wrightia tomentosa*	*Apocynaceae*	*Danti-kuvad*	*Flower*
10	*Momordica dioica*	*Cucurbitaceae*	*Kankoda*	*Fruit*
11	*Madhuca indica Gmel.*	*Sapotaceae*	*Mahuda*	*Fruit*
13	*Grewia tiliaefolia Vahl.*	*Tiliaceae*	*Dhaman*	*Fruit*
14	*Garuga pinnata Roxb.*	*Burseraceae*	*Kakdo*	*Fruit*
15	*Pleurotus sp.*	*Pleurotaceae*	*Ambli*	*Fruit*
16	*Bambusa arundinacea*	*poaceae*	*Vans*	*Young shoot*
17	*Marsilea minuta L.*	*Marsileaceae*	*Chilo*	*Leaves*
18	*Commelina benghalensis L.*	*Commelinaceae*	*Nanu kenu*	*Leaves*
19	*Phoenix sylvestris*	*Arecaceae*	*Khajuri*	*Fruit*
20	*Syzygium cumini (L.)*	*Myrtaceae*	*Jambu*	*Fruit*
21	*Syzygium indica L.*	*Caesalpiniaceae*	*Khatiambli*	*Fruit, Leaves, Flower*

22	*Cocculus hirsutus (L.) Diels.*	*Menispermiaceae*	*Vas velo*	*Leaves*
23	*Bauhinia purpurean*	*Fabaceae*	*Moto hinglo*	*Leaves*
24	*Telosma pallida L.*	*Asclepiadaceae*	*Devsiru*	*Flower*
25	*Dioscorea bubifera*	*Discoreaceae*	*Khakhri kando*	*Bulb*
26	*Trianthema portulocastrum*	*Aizoaceae*	*Khari bhaji*	*Leaves*
27	*Achyranthus aspera*	*Amaranthaceae*	*Adhedi*	*Leaves*

This research underscores the importance of preserving and promoting the use of wild edible plants, not only for the cultural heritage they represent but also for their potential to contribute to a more resilient and diverse local food system. In addition the nutritional value of these plants contributes substantially to the well-being of the communities, functioning as vital dietary supplements. Furthermore, the research highlights the role of wild edibles in the traditional health system, emphasizing their cultural importance in maintaining and promoting community health as well as plays a pivotal role in addressing issues of hunger and food security.

Understanding the intricate connections between these plants and the indigenous communities not only enriches our knowledge of traditional ecological knowledge but also opens avenues for sustainable practice and conservation efforts.

REFERENCES

1) Kayang, H. (2007). Tribal knowledge on wild edible plants of Meghalaya, Northeast India.
2) Jain, S. K. (2010). *Manual of ethnobotany*. Scientific publishers.
3) Jain, S. K. (1991). *Dictionary of Indian folk medicine and ethnobotany*. Deep publications.
4) Kumar, V. (2015). Ethno-medicinal plants in five forest ranges in Dang district, south Gujarat, India. *Indian J. Trop. Biodiv*, *23*(2), 1-9.
5) Srivastava, U., Bhatt, K. C., & Pandey, A. (2017). Wild Edible Plants in Asia-Pacific: A Case Study with Bastar Tribal Pockets in Chhattisgarh, India. *Regional Expert Consultation on Underutilized Crops for Food and Nutritional Security in Asia and the Pacific–Thematic, Strategic Papers and Country Status Reports*, 54.