International Journal of Scientific Research in Biological Sciences **Research Paper**
Vol.7, Issue.6, pp.14-38, December (2020) **E-ISSN:** 2347-7520
DOI: https://doi.org/10.26438/ijsrbs/v7i6.1438

Role of Wild Food Plants in Culinary Tourism Development of District Mandi Himachal Pradesh

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Available online at: www.isroset.org

Received: 13/Dec/2020, Accepted: 16/Dec/2020, Online: 31/Dec/2020

Abstract: Food plays manifold role in the travel plans of holiday makers to choose any tourist destination. People love to experience local tradition and culture through authentic cuisine making culinary tourism an important discipline of tourism management. Culinary tourism is a growing trend in tourism industry as travelers are now becoming increasingly focused and passionate on defining cuisine as a true artistic expression of a state, region or country's culture. In present scenario culinary tourism includes full range of experiences, cooking classes, street food, wild food, specialty restaurants, *dhabas*, wineries and many more. There is something for everyone in the cuisine tourism industry. District Mandi of Himachal Pradesh has tremendous potential as culinary tourism industry because there are various local wild food items, which are prepared by local peoples and served to tourist coming from all over the world. District Mandi geographically comes under Western Himalayan region, is with rich floristic diversity known for its rich nutritive and medicinal value. The local cuisines prepared from wild plants here can promote this area as a favorite tourist destination. Wild food plants like *Morchella esculenta*-***Guichchhee***, *Myrica esculenta*-***kaphal***, *Dioscorea belophylla* -***Taradee***, *Syzygium cumini*- ***Jaamun***, *Punica grantatum* – ***Daadu***, *Cordia obliqua* - ***Lasura***, *Rhododendron arboretum* – ***Buraans*** and *Diplazium esculentum*-***Lingad*** are known to have high market value. These are sold at high price, locally, nationally or internationally. So, can be a good source of earning for local people and will be helpful in entrepreneurship development and rural prosperity by enhancing socio-economic status of local people of Mandi District. So present study has been undertaken to promote 30 important delicious cum medicinal local wild food plants of the district Mandi that can attract tourist from all over the world and can help to promote this region of state as a favorite cuisine tourism destination.

Keywords: Cuisine, Wild Food, Culture, Tourist, Promotion, Socio-economic.

I. INTRODUCTION

Tourism isn't just about the natural beauty of any tourist destination but also the rich cultural extravaganza that can be best witnessed in its handicrafts, fairs, festivals, dance, music, delectable cuisine and many more [1]. Culinary tourism are the trips where local cuisine plays significant role in tourist attraction, culture exchange and entrepreneurship development. The World Food Travel Association (WFTA) defines culinary tourism as: the pursuit and enjoyment of unique, specific and memorable traditional food and drink experiences. Mandi district lying between world popular Shimla-Manali highways is "A Destination for All Season and All Reason". Main tourist destinations here are *Prashar Lake, Rewalsar Lake, Kamrunag Lake, Barot, Devidarh, Chindi, Shikhari Devi Temple, Mahunag Temple Kamlah Fort, Tashi Jong Buddhist Monastery, Bhutnath Temple, Bhima Kali Temple, Tarana Mata Temple* etc. Dependence of inhabitants on floristic diversity is very well known since the Vedic Period and they use plant wealth as source of medicine,food, fodder, fuel, timber, dye, fibers and materials [2]. The wild cuisine or food items due to their own uniqueness influence the tourists of the neighboring district, states and countries like Tibet, Nepal, Shri lanka, Bhutan etc. There are many good reasons to serve cuisine that satisfies normal criteria of tourists for food, which is healthy, delicious and locally produced. Some of the wild popular dishes in the cuisine of Himachal Pradesh include *Akhrot ke Siddu*, *Tardee*, *Burans ki chutney* and *shervat*, *Guichhi veg*, *ambala* candy, *Khadi badiyan*, *lasurra* veg & *lasurra* pickle, '*Kachru or sosru* (Traditional dish prepared with *basen*, spices and flowers or leaf*)*, *Fegri* veg and *Fegri* pickle, *kachuri* (stuffed with paste of boiled and meshed fig fruits or yam tubers and spices) *Lingad* veg, *Lingad* veg curry and *Lingad* pickle etc. Many of these food items are also served in *Dhaba* or restaurants. There are number of dishes which are specialty of a particular area and season, so cooked at these places only. These unique dishes need to be identified and encouraged for promotion of culinary tourism and to attract food loving tourist. Culinary tourism is an important new niche that fosters economic, cultural and community development through new intercultural insights. There is an urgent need of more awareness and knowledge about the growing number of food tourists and their favourite destinations

[1]. At present local wild cuisines are not much associated with tourism industry, so they are not in menu of majority of hotels, restaurants and *dhabas*. But, when we talk about culture, local cuisines and wild food items always constitute an integral part of it. Cultural tourism business in Himachal Pradesh is an important alternative form of tourism industry and same can also be with culinary tourism business [3] to make food wild cuisine and items a mean of rural prosperity and entrepreneurship development

II. RELATED WORK

Related work on culinary tourism is in the form of food and tourism synergies Perspectives on consumption, production and destination development [1], diversity, endemism and economic potential of wild edible plants of Indian Himalaya [2] and cultural tourism development in Himachal Pradesh emphasizing local cuisines and their promotion [3]. Earlier local cuisine and food items are not that much associated with tourism, but recent 3 to 4 years trends reveals that various specialty restaurants and local food shops are providing authentic local cuisine to tourist. Same trend is required to drag the attention of policy makers to include wild food items and cuisines in menu of hotels, restaurants and *dhabas.* Such type of study focusing on role of wild food items in culinary tourism development has not been undertaken so far in Distt. Mandi of Himachal Pradesh. As wild food items and cuisine have tremendous potential to attract tourist which will further help in entrepreneurship development and rural prosperity of the region. So, present study has been undertaken with following main objectives:

Objectives:

1. To know the diversity, distribution, habit and traditional method of utilization of popular food plants of District Mandi H.P.
2. To identify the wild food plant items and cusines, which are main source of tourism interaction.
3. To know role of Wild Food Cuisines in Tourist attraction and rural prosperity.
4. To promote local wild food items and cuisines for culinary tourism and entrepreneurship development of District Mandi of Himachal Pradesh.
5. Need of sustainable harvesting of wild food plants for ensuring sustainable development and sustainable culinary tourism development.

III. METHODOLOGY

Study is based on both primary and secondary data. Survey and sampling were done (Rapid) between amsl 500-4034 m in the study area. Information on altitudinal range, habit, habitat (s) and method of extraction, availability, market value and utilization pattern etc. of wild food items was gathered. Interviewed knowledgeable persons, owners of local hotels, restaurants and *dhabas*, visitors and local people who are involved in collection preparation, processing and marketing of wild food items through questionnaire.

Identification of samples was done with the help of local and regional floras [4] [5] [6] [7]. Plants were analyzed for traditional uses of food preparation and their role in income generation

Study area:

Present study has been conducted in Mandi district (31°42' 29.4" N latitudes and 76° 55' 52.92" E longitudes) of Himachal Pradesh, North West Himalaya. It covers approximately 3,950 km^2 area comprising 469 panchayats and 3374 villages with 2, 19, 145 households. The total human populations of study area is 9, 99,777 and livestock population is 67355.Altitudinal range of study area varies from 500-4034 m. It supports diverse habitats, species, communities and Ecosystems. The vegetation mainly of sub- tropical and temperate types and mostly dominated by broad leaved deciduous and evergreen and coniferous types. (District Economic and Statistical Department, Mandi, H.P).

Fig. 1. Google map of study area.

IV. RESULT

1.Diversity & Distribution of Popular wild Food Plants:

Total 30 wild food plants (trees 11 spp; shrubs 09 spp. & herbs 10 spp.) of study area belonging to 26 genera and 24 families documented (Fig. 1 and Table. 1). Among all families, Moraceae was found dominant represented by maximum species (4 spp.), followed by Fabaceae (03 spp.) & Dioscoreaceae (02 spp.). Among genera *Ficus* was (4 spp.) dominant followed by *Dioscorea* (2 spp.). (Fig. 1 and Table. 1)

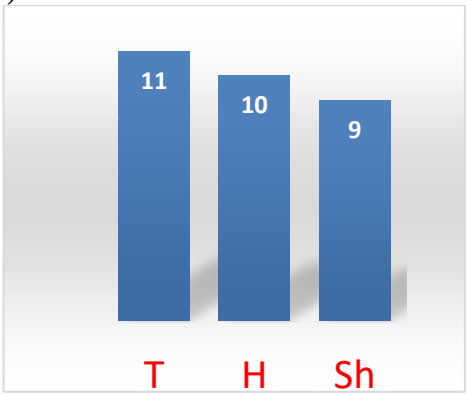


Fig. 2. Plant parts used for wild food cuisine preparation.

Table 1

S.No	Botanical Name/Local Name/ Family	Cuisine	Parts Used (Ed)	Altitudinal Range (m) & Habit	Food Value (Fd) /Medicinal value (Md)	Availability	Market rate (Rs)
1	*Aegle marmelos*/ *Bill Patri./* Rutaceae	Fr Jam, *Murabba*, Pickle, Refreshing summer drink, *Kachru (Basen chilla* prepared with spices and Lf). *Halwa*.	Fr, Lf	900 (Sh)	**Fd** of Lf. Sd and Fr is **Lf:** Moisture 71.26%, Crude fat 0.07%, Ash 0.98%, Crude protein & fibers 1.09%, 1.00 %, Total carbohydrates 24.96%, Energy Kcal 99 [8]. **Sd:** Moisture 53.75%, Crude fat, protein & fibers 14.94%, 9.57%, 1.01 %, Ash 1.56%,Total carbohydrates 18.88%, Energy Kcal 244 [8]. **Fr Pulp:** Moisture 63.04%, Crude fat, protein & fibers 0.28%, 1.87%, 2.78 %, Ash 1.29%, Total carbohydrates 34.35%, Energy Kcal 138 [8]. **Md:** Bael Lf are astringent, laxative, febrifuge and expectorant, and are useful in ophthalmic, deafness, inflammations, catarrh, diabetes and asthmatic complaints[9]. The unripe Fr are bitter, acrid sour, astringent, digestive and stomachic, and are useful in diarrhoea and dysentery. The ripe Fr are astringent, sweet, aromatic, cooling, febrifuge, laxative and tonic, and are good for the heart and brain [9].	Lf: round the year. Fr: Winters – summers	Fr =Rs 450/ Kg
2	*Bambusa arundinacea/ Bans*/ Poaceae	Veg *curry*, Pickle, *chutney.*	Ts, (Mannu) young Lf	1000 m (T)	**Fd:** 100 g of edible St contains; moisture, 88.8; protein, 3.9; fat, 0.5; carbohydrates, 5.7 g; and total minerals, 1.1 g; Ca, 20.0; P, 65.0;Fe,0.1; Mg, 32.0; Na, 91.0; Cu, 0.19; Cl, 76.0; thiamine, 0.08; Riboflavin, 0.19; Niacin, 0.2; Vit C, 5.0; Choline, 8.0; and oxalic acid 2.0 mg; and energy, 43 kcals[10]. **Md:** The Lf are sweet, astringent cooling ophthalmic, vulnerary constipating and febrifuge. They are useful in vitiated conditions of pitta ophthalmopathy, haemorrhoids, diarrhoea, gonorrhoea, wounds skin diseases and fever. The sprouts are acrid, bitter, laxative, thermogenic, anti-	Rainy season	Pickle =Rs 500-600/kg

					inflammatory, digestive, carminative, anthelmintic and diuretic. Also useful in inflammations, ulcers and wounds, dyspepsia, nausea, intestinal worms [9]..		
3	*Bauhinia variegata/ Karyale, kachnar/* Fabaceae	Veg, (Boiled Fl buds sauted in hot oil with spices & curd) Pickle (Fl bud), *Kachru, Rayata Pakoras*[13]	Fl & Fl bud	1700 (T)	**Fd:** 100 g of Fl buds contains; moisture, 78.9 g; protein, 1.8 g; fat, 0.2g; fibre, 1.3; carbohydrates, 17.8; total minerals as ash, 1.3g; Ca, 70.1 mg; P, 74.2 mg and Fe, 6.1mg [11]. **Md:** Useful in vitiated conditions of *pitta* and *kapha*, diarrhora, dysentery, skin diseases leprosy, tumours, wounds, ulcers, inflammations, scrofula, haemoptysis, cough, menorrhagia and diabetes [9].	Late spring - mid summers	Fl & Fb= Rs 25 - 30/ 150-200 g
4	*Bombax ceiba/ Simbal/* Malvaceae	Veg (chopped Bd sauted in hot oil with spices), pickle,	Fl Bd	1300 (T)	**Fd:** 100 g of fresh Bd contain, moisture, 85.6% ; protein, 1.4g ; carbohydrates, 11.9 g; mineral, 0.01g ; Ca, P, 49.0 mg; Mg, 54.2mg [11]. **Md:** The Fl and Fr in combination with other drugs are recommended for the treatment of snake-bite and scorpion sting.The spines are used to treat pimples which develop on eyelids called hakhnaal in local dialect of distt. Mandi of Himachal Pradesh[9].	Late spring-summers	
5	*Cannabis sativa/ Bhang*/ Cannabaceae	*Ladoo,* (Sd of *Amaranthus paniculata* plus bhang seeds) *bhangolu (*S alted Sd powered of *bhang) Modi (*Roasted bhang Sd and wheat grains*) Ghota (*Milk, *bhang Lf*, sugar grated dry Fr*) Pakoras*	Sd, Lf	3000 (H)	**Fd:** Whole bhang Sd contain (%) Oil, 35.5; Protein, 24.8; Carbohydrates, 27.6; Moisture, 6.5; Ash, 5.6; Energy, (kJ/100 g) 2200 ;Total dietary fiber(%), 27.6; Digestible fiber, 5.4; Non-digestible fiber ,22.2; Vitamin E, 90 ; Thiamine (B1), 0.4; Riboflavin (B2), 0.1; P,1160; K, 859; Mg, 483; Ca, 145; Fe, 14; Na, 12; Mn,7; Zn, 7; Cu, 2 (mg / 100 g) [12]. **Md:** Bhang Lf are bitter, astringent, tonic, aphrodisiac, antidiarrhoeic, intoxicating, stomachic, analgesic and [9]. They are used in convulsions, otalgia, abdominal disorders, diarrhoea, stomatalgia and haematorrhoea [11]. Its excessive use causes dyspepsia, cough,	Lf: round the year. Sd: pre-autumn to winters	Trading is illegal

					impotence, melancholy, dropsy, hyperpyrexia and insanity [11]. Sd are carminative, astringent, aphrodisiac, antiemetic and anti-inflammatory [9]. Decoction of Lf with mustard oil applied for relieving inflammation and rheumatic pains[13]. Fine paste of Lf with beetle nut and jaggery roasted in *'desi' ghee* used to make pills for stomachache and diarrhea [14].		
6	*Colocasia esculenta/* Jangli kachalu , Ubad Kachalu/ Araceae	***Khadi Badiyan (***St wrapped with paste of ground pulses and spices, dried and cut into pieces) ***Bhujji*** (*Saag*). **Veg curry**, ***Patrodu*** (Apply paste of *basen* and spices over Lf fold, steam cook and fry), ***Dum (***St cooked *patrod u* sauted with spices and curd)	Cm, St, Lf.	2700 (H)	**Fd:** Lf contains: Calories 42, Fats 0.7g, Saturated Fat 0.2g, Na 3mg, Carbohydrates 6.7g, Dietary Fiber 3.7g, Sugar 3, Protein 5g, Vitamin A 96%, Ca 11% [15]. **100g of Rt contains:** Energy 112K cal, Carbohydrates 26.46 g, Protein 1.50 g, Total fat 0.20 g, Dietary fibers 4.1 g, Folates 22 µg, Niacin 0.600 mg, Pantothenic acid 0.303 mg, Pyridoxine 0.283 mg, Riboflavin 0.025 mg, Thiamin 0.095 mg, Vitamin C 4.5 mg, Vitamin E 2.38mg, Vitamin K 1 µg [15]. **Md:** The Lf juice is styptic, stimulant and rubefacient, and is useful in internal haemorrhages. The juice of the corm is laxative, demulcent and anodyne, and useful in somatalgia, alopecia, areata, haemorrhoids and congestion of the portal system[9]. The plant is antibacterial and hypotensive. A decoction of the leaves is drunk to promote menstruation [16].	Lf: rainy – autumn. St: autumn - pre-winters Corm: pre-winter – winter	1. Lf (10) = Rs 20.to 30 2. St (10) = Rs 20 to 25. 3.*Khadi badiyan* =Rs 80 to 100/ 250 g. 4.Corm =Rs 30 to 50/ kg.
7	*Cordia oblique/ Lasura,Lassora, Lessora, Lasora Lasura/* Boraginaceae	*Patrodu* (Apply paste of *basen* and spices over leaves fold, steam cook and fry), Pickle, Veg (Deseeded Fr sauted in hot oil with spices and some acidulant)	Fr, Lf	1500 m	**Fd:** 100 g of Fr contains, 75 g; acidity, 0.2 g; total sugars, 3.55 g; reducing sugars, 3.41 g; non-reducing sugars, 0.08 g, and pectin, 4.5 g; protein 2.06 g; ash, 2.132 g; P, 0.091 g; K, 1.066 g; Ca, 0.062 g; Mg, 0.067 g; and Fe, 0.005 g [17] **Md:** The Fr are sweet, cooling, emollient, anthelmintic, purgative, vulnerary, diuretic, expectorant, aphrodisiac, depurative and febrifuge,	Lf: spring. Fr: Summer to rainy season	1.Raw Fr=Rs 40-80/ kg 2.Pickle= Rs 180 – 250/Kg.

					and are useful in vitiated conditions of *vata* and *pitta*, ulcers, leprosy skin diseases, dry cough, pectoral diseases [9].		
8	*Dioscorea belophylla/* Taradee/ Dioscoriace	Veg, Veg, *curry*, Pickle. *Bhale, kachuri.*	Tu	1800 (H)	**Md:** Bulbils has been used as a flock remedy or home remedy to treat conjunctivitis, diarrhea and dysentery among other ailment. The steroid diosgenin, an active component of birth control pills is extracted from the plant as the anti-fungal compound dihydrodrodio [18]. Its bulb are used in India to treat piles, dysentery syphilis and are applied to ulcers, pain and inflammation [19].	Tu: winter - spring season.	Tu- Rs 150 to 250/kg
9	*Dioscorea spp/* Dareghal/ Dioscoreaceae	Veg, Veg *curry*, *Bhalle & kachuri.*	Tu	700-1400 m	**Fd:** 100g of Tu contains, 68.7%; carbohydrates, 77.4 %; total minerals, 2.4%; crude protein, 4.4%; crude fibre, 4.4%; crude fats, 3.5%; energy value, 1521 KJ/100 g [20]. **Md:** Tu juice with hot water is given to treat fever, malaria, headache, and dysentery. Both Tu and bulbils used to treat wounds, sores, boils and inflammations. These are applied as dressings for treating dermal parasitic and fungal infections. These are crushed and mixed with palm oil, and massaged onto areas of rheumatism, and for troubles of the breasts. Dried and pounded tubers are used as an application for ulcers and they are used in piles, dysentery and syphilis[19].	Pre-winter - spring season	Tu= Rs 200 to 400 /kg
10	*Euphorbia royleana/ Chhoohin , Danda thor, Chu /* Euphorbiaceae	*Mitthaa* (Boiled chopped shoot cooked with *desi ghee*, sugar and dry fruits*), Rayata* (boiled stem pieces with curd and spices)	young shoot & branches	2000 (Sh)	**Md:** The acrid milky juice possesses cathartic and anthelmintic properties Milky latex is effective against joint pain. In villages people eat recipe of *chhoohin* plant for treating pile [21].	Round the year	
11	*Ficus hispida/ Debre/* Moraceae	Veg, Veg *curry*.*Paranths , kachuri*.	Fr	1100 (T)	**Md:** All parts are bitter, cooling, acrid; astringent to the bowels, anti-dicentric; useful "*Kapha*", ulcers, biliousness, psoriasis, anaemia, piles, jaundice, haemorrhage of the nose and mouth diseases of the blood. The fruit is sweetish,	Late spring - rainy season.	

					cooling; aphrodisiac, tonic, lactagogue, emetic; causes "*vata*" and constipation. The The fruit, seed and bark are possessed of valuable emetic properties [21].		
12	*Ficus palmata/ Fegra khasra daghla/* Moraceae	Veg, veg curry. Pickle. *Kachuri, Parantha.* Ripe Fr eaten raw.	Fr	1550 (T)	Fd: 100g of fruits contains: Moisture 48.20 %, Ash 4.06 %, Total N 0.73 %, Total protein 4.06 %, Crude fat & fibers 4.71 %, 17.65 %, Carbohydrate 20.78% , Organic matter 95.90%. value K Cal 107.37± 0.15 N 0.73± 0.12 %, Ca 1.54 %, Mg 0.92%, K 1.58 %, P 1.88 %, Fe 0.018 % [22]. **Md:** The Fr act as demulcent and laxative. They are mostly used as diet in case of constipation and in diseases of the lungs and bladder. They are also used as poultices [19].	Late winters-spring season	Raw Fr= Rs 200-250g
13	*Ficus racemosa/Umre/* Moraceae	Veg, Veg curry, Pickle. *Parantha, kachuri.* Ripe Fr eaten raw	Fr, Lf	1200 (T)	**Md:** The Fr are active against leprosy, menorrhagia, leucorrhoea, and blood disorders, burns, intestinal worms, dry cough, and urinary tract infections. Bronchitis, bowel syndrome, and piles are treated with its leaves, in the Unani System of Medicine. The Lf buds are effective against skin infection, and a decoction of the leaves is used in wound washing and healing. The latex is externally applied on wounds to decrease inflammation, pain, and promote its healing. It is used with sugar to reduce diarrhoea and dysentery, especially in children, and improves the sexual power in males [23].	Fr: Spring – Summers. Lf: New spring growth only	Pickle=Rs 250-300/kg.
14	*Ficus auriculata / Trembal, Taryambalu/* Taryambal / Moraceae	Veg, Veg curry, *Patrodu* (Apply paste of *basen* and spices over Lf of new spring growth, fold, steam cook and fry), *Parantha. Kachuri.* Ripe Fr eaten raw	Fr, Lf	1700 (T)	**Fd:** Ripe Fr contain moisture, 87.1 %; sugars, 6.15%; pectin, 0.48%; protein, 0.59%, Vit. C, 3.35 mg /100. g P, K, Ca, Mg, and Fe is, 0.039, 0.331, 0.039, 0.045 and 0.003 respectively [17]. **Md:** The latex from the St is applied to cuts and wounds and fruits are effective in the treatment of diarrhea and dysentery [20].	Fr: Spring - pre-summer season. Lf: new spring growth.	
15	*Indigofera atropurpurea/* Kathi/ Fabaceae	*Kachru, Rayata*	Fl	300- 1900, (Sh)	**Md:** Fl decoction is effective against diarrhea and dysentery [20].	Fl: spring - early summers.	
16	*Juglans regia/*	*Siddu,*	Sd	1000-3000	**Fd:** The Sd contain 50.5%	Fr: Autumn -	Dry Sd=

	Khod Akhrot/ Juglandaceae	*Chutney,* Sd eaten raw		(T)	moisture, sugars 5.58%, proteins 0.358 %, minerals 1.934%, P, 0.124; K, 0.733; Ca, 0.0495; Mg, 0.042 and Fe, 0.00484% respectively [17]. **Md:** The Fr are sweet, emollient, thermogenic, aphrodisiac, tonic and carminatives. They are useful as alternant in rheumatism. The expressed oil of the Fr is considered useful against tapeworm and is used to strengthen and lubricate the muscles [24]. The kernels are said to posses' aphrodisiac properties and are recommended in colic and dysentery [24].	pre-winter	Rs 200-500/kg
17	*Moringa oleifera./Soonani/*Moringaceae	Veg, *Chutney, Kachru, Rayata, Shambar*	Fl, Sd, Rt, Fr, Fl	1000 (T)	**Fd:** 100 g of fresh Lf contain, energy, 64 kcal: carbohydrate, 8.28 g; dietary fiber, 2.0 g; fat. 1.40 g; protein, 9.40 g; vit. A, 378 µg; Thiamine (B1), 0.0530 mg; Riboflavin (B2), 0.660 mg; Niacin (B3), 0.60 mg; Pantothenic acid (B5), 0.125 mg; Vit B6, 1.200 mg; Folate (B9), 51.7 mg; Vit, 51.7 mg [25]. 100 g of fresh pods contains, Energy, 37 kcal: carbohydrates, 8.53 g; dietary fibre, 3.2 g; Fat. 0.20 g; protein, 2.10 g; vitamin A, 4 µg; Thiamine (B1), 0.257 mg; Riboflavin (B2), 0.074mg; Niacin (B3), 0.620 mg; Pantothenic acid (B5), 0.794 mg; Vit B6, 1.120 mg; Folate (B9), 141 mg; Ca, 30mg; Fe.036mg;Mg, 45mg; Mn, 0.259 mg: P, 50; K, 46.1;Na, 42; Zn,0.45 mg [25]. **Md:** Act as a cardiac/circulatory tonic, used as a laxative, abortifacient, treating rheumatism, inflammations, articular pains, lower back or kidney pain and constipation, Purgative, applied as poultice to sores, rubbed on the temples for headaches, used for piles, fevers, sore throat, bronchitis, eye and ear infections, scurvy and catarrh; leaf juice is believed	Lf: round the year. Fl & Fb: spring Fr: early summer	1. Lf = Rs. 70-80/ kg. 2. Sd =500/ kg

					to control glucose levels, applied to reduce glandular swelling Rubefacient, vesicant and used to cure eye diseases and for the treatment of delirious patients, prevent enlargement of the spleen and formation of tuberculous glands of the neck, to destroy tumours and to heal ulcers [26].		
18	*Morchella esculenta*/Guichchhee/ Agaricaceae	Veg, Veg curry, Pickle.	Fruiting body	1500 to 3000.	**Fd:**Moisture 90.79 g, Ash 11. 34g, Carbohydrates 74.55g, Proteins 11.52 g, Fat 2.59, Energy 367.59 kcal, Fructose 0.71, Total Sugars 15.66g [27] .	Autumn-Rainy season	Rs 15000/kg
19	*Myrica esculenta/ Kaphal/* Myricaceae	Refreshing summer drink, desserts, Ripe Fr eaten raw	Fr	1000- 1800 (Sh)	**Fd:** Fr (%) Ash, 2.18; Moisture, 72.33; Fat, 4.93; Fibre, 5.22; Protein, 9.62; Carbohydrates 78.03; Energy, 395.04; Minerals (mg/g): Ca, 4.63; Mg, 8.4; K, 7.75; P, 0.24; Na, 0.81; Mn, 0.032; Zn, 0.216; Fe, 0.404; Cu 0.004 [28,29]. **Md:** Powered Sd and Fr useful against stomach disorders; one teaspoon twice a day for 3-5 days [18].	Spring ends –summer	Fr=Rs 200 to 400/ kg depending upon quality.
20	*Nasturtium officinale* /*Chhooch* /Crucifereae	*Saag*	Lf, Ts	2100	**Fd:** 100 g of St contains: moisture, 89.2, protein, 2.9; fat, 0.2; carbohydrates, 5.5; and mineral matter, 2.2 %; Ca, 290; P, 140 and Fe, 4.6 mg [30]. **Md:** Plant is a valuable source of vitamins and a good detoxifying herb. Its high content of vitamin c and minerals make a sit a remedy that is particularly valuable for chronic illnesses. It stimulate the appetite and to relieve indigestion, to help in cases of chronic bronchitis to be generally stimulating and to act as a powerful diuretic [11].	Round the year	Lf=Rs 20 to 30/ 250 g
21	*Opuntia dillenii* / *Drabhad chhoonh* / Cactaceae	Veg, Ripe Fr eaten raw	Lf like St (Pads), Fr.	1500	Fd: 100 grams of prickly pears contain 41 calories of energy, 0.5 g fat, 0.7 g protein, 0.1 mg riboflavin, 0.5 mg niacin, 0.1 mg vitamin B6, 0.3 mg iron and 0.1 mg zinc [31]. **Md:** the Lf are very tasty, stomachic; cure Inflammation, ascites, tumours, pains etc. The Fr is considered as a refrigerant	Lf pads: round the year. Fr: spring - summer end.	

					and is said to be useful in gonorrhoea[11].		
22	*Phyllanthus emblica*/ Ambla/ Phyllanthaceae	Pickle, Jams, *Murabba*, *Chutneys*, *Bhalle* (Mesh boiled Fr and make paste with spices, Make round tablets or bread spread and dry in sunlight). Ripe Fr eaten raw	Fr	1500 (T)	**Fd:** 100 g of fresh Fr contains carbohydrates,10g; moisture, 86 g; fats, 0.5 g; protein,1g; gallic acid, 3012.5mg; Vitamin C, 478 mg; E, 0.16mg; Ca, 25 mg; Fe, 0.9 mg; Mg,10 mg; P, 21 mg; K ,198mg; Na,13 mg; Zn, 0.12 mg; Cl, 25.6mg [32]. **Md:** The Fr are sour, astringent, bitter, acrid, sweet, cooling, anodyne, ophthalmic, carminative, digestive, stomachic, laxative, adulterant, alexiteric, aphrodisiac, diuretic, antipyretic, tonic. They are useful in vitiated conditions of tridosa; diabetes, cough, asthma, bronchitis, ulcer, skin diseases, leprosy, inflammations, anaemia, jaundice[11]. Local people use dried and powdered ambla to check baldness and hair fall along with mustered oil heated in slow flame. Amla inhibit the growth and spread of different types of cancer like, breast, pancreases, liver, uterus, stomach and malignant as cites [11].	Pre- winter - winter end	1.Fr =Rs 80 to 150/kg. 2. Pickle =Rs 200-300/kg 3.Jams =150-250/kg. 4.*Murabba*= 200-300/kg
23	*Portulaca oleracea/ Kulpha/* Portulacaceae	*Saag*, Puddings	Lf, St, Sd	1700 m	**Fd:** 100g Sd contains 21g protein, 18.9g fat 3.4g ash Fatty acids of the seeds are 10.9% palmitic, 3.7% stearic, 1.3% behenic, 28.7% oleic, 38.9% linoleic and 9.9% linolenic [33]. 100g dry Lf contains Calories 270; Protein: 26g; Fat: 4g; Carbohydrate: 50g; Fibre: 11.5g; Ash: 20g;Minerals – Ca,1500 mg; P, 550mg; Fe, 29 mg; Na: 55mg; K: 1800 mg; Vitamins A:,15000mg; Thiamine (B1), 0.35mg; Riboflavin (B2), 1.4mg; Niacin: 6mg; B6: 0mg; C: 250mg[33]. **Md:** Except for the Rt, the entire plant is used as antibacterial, anti-inflammatory and anthelminthic. It is used in treating bacillary dysentery. Poultices of fresh leaves are used to treat mastitis, boils	Rainy - autumn season.	Lf=Rs 30 to 40/ kg.

					and impetigo. The plant is antibacterial, antiscorbutic, depurative, diuretic and febrifuge [11]. The Lf are a rich source of omega-3 fatty acids, which is thought to be important in preventing heart attacks and strengthening the immune system. The Sd are tonic and vermifuge [34,35].		
24	*Punica grantatum L.- Daadu Anardana, Anar Dadim, Dadima/* Lythraceae	*Chutney, A* good addition to any sour recipe. Ripe Fr eaten raw.	Sd	2500 (Sh)	**Fd: Pomegranate peel powder contains:** Moisture 13.70 %, Protein 3.19%, Fat 1.73%, Ash 3.30 %, Fiber 11.22 %, Carbohydrate 80.50, Total phenolic 27.92 [36]. **Pomegranate Sd powder Contains:** Moisture 5.82 %, Protein 13.66 %, Fat 29.60 %, Ash 1.49 %, Fiber 39.36 %, Carbohydrate13. 12%, Total phenolic 0.25% [36]. **Md:** A decoction of the Sd is used to treat syphilis. Juice of the Fr is used to treat jaundice and diarrhea[9]. The rind of the Fr is ground in waters and drunk every morning by diabetics. The Fr pulp and the Sd are a stomachic [9]. The Rt and the St bark have astringent and anthelmintic properties. Sd juice considered useful as a cardiac tonic [14].	Fr:rainy - pre -winter.	Sd= Rs 400 to 500 /kg.
25	*Reinwardtia indica/Peenyan/* Linaceae	*Kachru*	Fl	1800 (Sh)	**Md:** Fl along with branches and leaves are used medicinally in the treatment of paralysis. Fl being rich in ascorbic acid are antioxidant in nature [25].	Fl: Late winters-summers. Start	
26	*Rhododendron arboretum/ Buraans Braah, Buras, Bras or Barah ke phool./* Ericaceae	*Kachru/chutney/sherbat*	Fl	1500-3500 (Sh)	**Fd:** 100 g of fresh Fl contain, moisture, 82.2% ; protein, 1.6% ; fats, 0.6% ; carbohydrates, 1,7%; minerals,1.3%; fiber,1.3% ;energy, 40 kcal; P 2.5 mg [37]. **Md:** Fl is very effective cure frequent nose bleeding [21].	Fl: early spring - summer.	1.Fresh Fl bunch (10 to 15 flower sticks) =Rs 20 to 50. 2. Fl juice =Rs100/ bottle. 3.*Chutney* -Rs 160/250 g.
27	*Rosa macrophylla/ Jangali gulab/*	*Kachru, Jam, Gulkand* Petals mixed with sugar), *(Sherbet*/Tea	Fl, Fr. Sd	2,000-3,500 (Sh)	**Fd:** is considered by locals as a rich source of vitamins and minerals, especially in vitamins A, C and E. **Md:** Fl decoction is used to cure cough and cold. Petals	Fl: summer - rainy season.	1. *Gulkand* sold=Rs 230 /kg 2. *Sherbet*:

					strengthen the gums. Fr pulp enhances eyesight [38].		Rs. 150/ Bottle
28	*Senna tora/ Yelo,Raily/* Fabaceae	Veg, *Chutney* (Roast and ground dried seeds. Then saute in hot oil with spices and cook with hill lemon juice, jaggery & dates) coffee	Lf, Fr, Sd	1,550 (H)	**Md:** Sd help to boost eyesight, reduce weight and intensive heat from the liver. It helps to cool down intestine and makes the bowel movement flexible[21].	Lf: rainy-autumn. Sd and pods: autumn – winters	*Yelo chutney* =Rs 400/kg
29	*Stellaria media/ Padyaala/* Caryophyllaceae	*Saag*	Lf, Fl, Ts	4,000 (H)	**Fd:** 100 gm of Lf contain moisture, 91.7; protein, 1.2, crude fiber, 1.7 and total minerals 1.6 g Vit. A and C [39]. **Md:** *Padyaala* chiefly used to treat irritated skin, being applied as juice, poultice, ointment or cream. It is often used to relieve eczema, varicose ulcers and nettle rash. An infusion of the fresh dried plant may be added to a bath, where the herbs emollient properties will help to reduce inflammation in rheumatic joints, for example and encourage tissue repair. Chickweed may also be taken internally to treat chest ailments. In small quantities, this herb also aids digestion[9].	Pre-winter - late spring	
30	*Urtica dioica/ Koogas*/Urticaceae	*Saag, Kachru Chutney*, Tea	Lf. Ts	3,000	**FD:** Fresh Lf contains approximately 82.4% water, 17.6% dry matter, 5.5% protein, 0.7 to 3.3% fat, and 7.1% carbohydrates. Vii. A and C, Minerals (Ca, K, Mg, P, Si, S, Cl) and trace elements (Mn, Cu, Fe) [21]. **Md:** Lf juice is remedy for all sorts of bleeding; The decoction is used as diuretic, astringent, anthelmintic. It has been found useful for nephritic troubles, in hemorrhages- especially from the kidneys or uterus, consumption and jaundice [11].	Lf: Round the year,	

Abbreviations used: H=Herb; T=Tree; Sh=Shrub; St=Stem; Fr=Fruit; Sd=Seed; Bd=Buds Tu= tuber; Ap= Aerial Part; Lf=Leaf; Fl= Flower; Veg= vegetable.

2. Indigenous uses and traditional practice of food preparation:

The edible parts of documented 30 wild food plants such as roots, stem, leaves, tubers, flowers, buds, seed and fruits are either consumed fresh raw or cooked in various form (Table 1,Fig. 4 to 33.). Among the plant parts used fruits (13 spp.) are most utilized followed by flowers (9 spp.) (Fig. 2, Table 1). 7 species are consumed both raw and cooked (Table 1). 22 spp. are used as vegetable while rest are cooked as a food supplement in the form of *chutney, sherbet, kachuri, bhale, snacks, halwa, siddu, pakoras* etc. (Table 1, Fig. 4 to 33.)wild food plants like *Euphorbia*

royleana, *Opuntia dillenii* and *Urtica dioica* contain milky latex or spines in them and their harvesting may cause long lasting irritation or pain, so a special care has to be taken while harvesting these plants parts (Fig. 13, 24 & 30.) Fruits and pads of *Opuntia dillenii* bear very fine bristles which might pierce into fingers. The bristles can be removed by burning or rubbing on stone. For harvesting *Urtica dioica* hands should be covered with gloves or wrapped with cloth. Some people collect leaves with the help of tong. The leaves lose their stinging property after the these are soaked in water. The stinging effect completely vanishes after cooking.

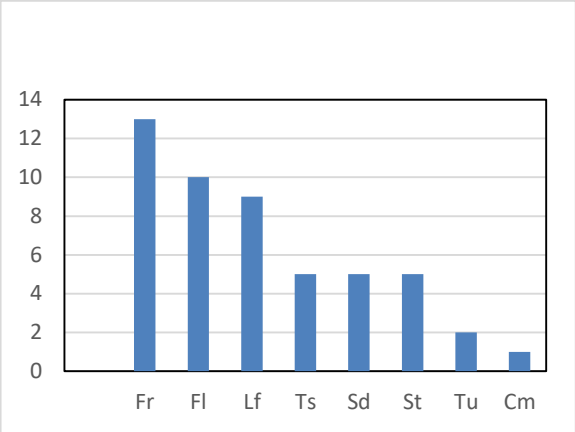


Fig.3 Habit of wild food plants.

Photo plates: Showing Utilization Pattern Of Wild Food Plants:

Bill *patri* tree

Collecting *bill patri* Lf & Fr for cooking

Fr collected for cooking

Kachru from *Bill patri*

Sharvet

Murabba

Bill patri offered to Lord Shiva

Selling of *Bill patri*

Fig. 4. *Aegle marmelos*

A plant of *Bans*

Bans vegetable

Fig. 5. Bambusa arundinacea

Karyale in full bloom

Harvested *karyale* Fl & Fl buds

Kachru from Fl

Veg. *Curry*

Rayatw

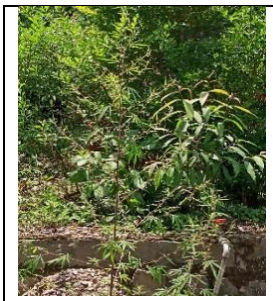
Karyale bud's Pickle

Fig. 6. *Bauhinia variegata*

Simbal bloom

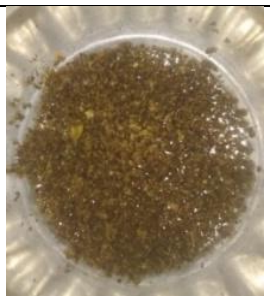
Simbal buds

Fig. 7. *Bombax ceiba*



Bhang growing wild

Harvested *bhang* Sd for cooking



Roasted *bhang*olu *namak* (salt)

Bhang ladoo ready to eat

Bhang Sd *modi* ready to eat

Fig. 8. *Cannabis sativa*


Jangli Kachalu growing wild


Harvesting *Jangli Kachalu*


Harvested *Jangli kachalu.*


Preparing *khadi badiyan* of *jangli kachalu*


Vegetate *Curry* from stem.


Putting *besan* mixture on leaves for *patrodu* making


Patrodu Ready to eat


DUM (*Patrodu curry)* made from leaves of *jangli kachalu.*


Bujhii from *Jangli kachalu* leaves


A women Selling *Jangli kachalu* at Mandi town

Fig. 9. *Colocasia esculenta*


Harvesting of *lassura*


Lassura Fr


Fr being deseeded for cooking


Deseeded Fr


Lassora Pickle


Applying *besan* mixture on Lf for *patrodu* making


Patrodu ready for steam cooking


Ready to eat *patrodu*

Fig. 10. *Cordia obliqaa*


A vine of *taradi*


Taradi tubers going deep into the soil.


Tardoloos for Sowing


Chopped *taradi* Tu


Vegetable of *taradi* Tu


taradi vegetable curry


Taradi Tu bhalle


Badiyan from *Taradi*

Fig. 11. *Dioscorea bellophylla*


Vine of *dareghal*


Dareghal Tu


Dareghal Tu vegetable

Fig. 12. *Dioscorea bulbifera*


Wild growing plants of *chhoohin*


Preparing a *chhoohin* branch for cooking


Mitthaa of *choohin*

Fig. 13. *Euphorbia royleana*


Harvesting of *dabre Fr*


Harvesting of *dabre Fr*


Debre fruits vegetable & vegetable *curry*


Debre parantha

Fig. 14. *Ficus hispida*

Fruit bearing in *fegri* tree

Harvested *fegri* fruits

Ready to serve recipe of *fegri* fruit with *amchoor*

Fegri veg curry

Fegri fruits offered for sale

Fig. 15. *Ficus palmata*

Harvesting *Umre* fruits

Umre fruits

Umre vegetable & vegetable *curry*

Kachuri stuffed with paste of *Umre* and spices

Umre pickle

Selling of *Umre* pickle

Fig. 16. *Ficus racemosa*

A *Taryambal* tree and harvested fruits

Boiled *Taryambal* fruits

Taryambal vegetable

Taryambal vegetable & vegetable *curry*

A B

A.Paste of meshed *taryambal and* spices for making *parantha.* B. *Parantha* ready to serve.

Fig. 17. *Ficus roxburghii*

Kathi plant in full bloom

Harvesting *Kathi* flowers

Kathi kachru

Fig. 18. *Indigofera atropurpurea*

Khod trees growing in wild

A *Khod* tree bearing fruits

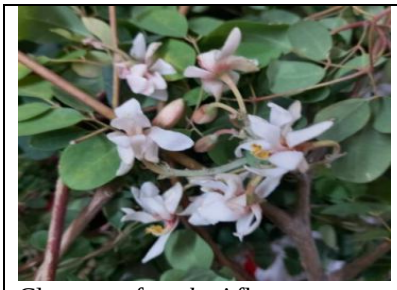
Harvested *Khod* nuts

Khod seed used to garnish a local sweet dish *sirra*

Ground *khod* seeds, chopped onion, meshed potatoes plus spices for paste making

Siddu of *Khod* seed

Fig. 19. *Juglans regia*


Close-up of *soolani* flowers


Immature seed pod of *soolani* for vegetable preparation


Ingredients for *chutney* preparation


Soonani chutney ready to serve


Ingredients for *kachru* making.


Kachru ready to serve

Fig. 20. *Moringa oleifera*


Guchchhees growing in the forest


Guchchhees collected for cooking


Dried *guchchhees* soaked in water before cooking


Guchchhee Dum

Fig. 21. *Morchella esculenta*


Fruits bearing tree of *Kaphal*


A girl collecting *kaphal*


kaphal selling in Mandi town

Fig. 22. *Myrica esculenta*


Collecting *Chhooch* for cooking


Harvested *chhoochh* leaf and tender shoots


chhoochh leaves vegetables


A woman selling *Chhooch* at Mandi town

Fig. 23 *Nasturtium officinale*


Plants of *drabhad chhoonh*


Tender pads of *drabhad chhoonh*


Drabhad chhoonh vegetable.

Fig. 24. *Opuntia dillenii*


Ambla trees


Fresh *ambla* fruits


Ambla jam


A women selling *ambla* fruits


Ambla fruits *Badiyan & candy*


Bhale of *ambla* fruits


Ambla fruits for worshiping in bowl (*Doonu*) of *Ficus auriculata* leaf


Juice

Fig. 25. *Phyllanthus emblica*


A Plant of *Kulpha*


Harvested *Kulpha* Terminals


Kulpha saag

Fig. 26. *Portulaca oleracea*


A branch showing *Daadu* fruit


Removing seeds of *daadu* from fruits


Dried seed of *daadu* as a*nardana*


Chutney of *Burans* (*Rhododendron arboretum*) and *anardana*

Fig. 27. *Punica grantatum*

A shrub of *peeyan*

Ingredients for *Kachru* making

Kachru of *Peenyan*

Fig. 28. *Reinwardtia indica*

A *burans* tree in full bloom

Flowers of *burans*

Ingredients for *chutney* making

Burans chutney being served with *pakoras* in a local *dhaba.*

Butter milk prepared from dried powder of *Burans* flowers and mint.

Kachru made from *burans* flowers

Squash made from *burans* flowers

Burans flowers being sold at Mandi town

Fig. 29. *Rhododendron arboretum*

A flower of *Jangali gulab*

Harvested *jangali gulab* petals for cooking

Paste for *kachru* making

Kachru ready to serve

Garnishing with dried *jangali gulab*

Jangali gulab sherbet making

Jangli gulab sherbet & *gulkand*

Fig. 30, *Rosa macrophylla*


Harvesting *Yelo* pods


Vegetable from young pods and young leaves


Yelo dried seed


Yelo chutney

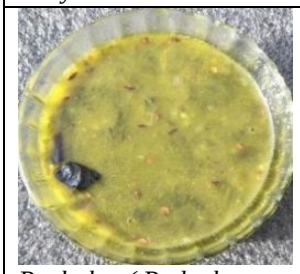
Fig. 31. *Senna tora*


Padyala Plants



Harvesting *padyala* leaves


Saag made from *padyaala*


Pacholan (Padyala saag sauted with spices and rice water*)*



Paste for *kachru* preparation


kachru served with *chutney*

Fig. 32. *Stellaria media*


Koogas plant



Harvesting *koogas*


Koogas saag ready to serve


Koogas chutney & veg. ready to serve


Koogas soup


Koogas chutney


Koogas paneer


Koogas Kachru ready to serve

Fig. 33. *Urtica dioica*

3. Role of Wild Food Cuisines in Tourist attraction and for socio- economic development:

Wild food items like *Lasura, Taradee, Dareghal, Fegri, Khod, Kaphal, Daadu, Guchhi, Buraans* and *Lingad* are very popular wild food of Mandi. These Food plants items good source of earning for local people specially woman and children of rural area. They collect edible plant parts of these wild food plants and sell these fresh to the tourist & visitors by standing along roadsides. Some woman sells wild food items both fresh and dried in local market through various Self-Help Groups. Plant parts like *Khod, Guchhi,, Daadu, Buraans* are dried and processed for selling round the year to tourist of any season. *Burans* flower *chutney* is served to the tourists round the year at famous *Fojji dawa* at Narla in NH-21 Mandi-Pathankot national Highway. Likewise processed food items like *Burans* & *Brahmi* juice; pickle of *Lassura, Lingad & Umre; chutney of Burans, &Yelo; Ambala powder, jam, murabba; Badiyan of Ambala & Jangli kachalu; Gulkand* etc. (Table 1) are also tourists' attraction and sold by various Self-Help Groups during weekly self -help group fair during every Saturday at Seri munch of Mandi Town. These wild food items are also sold in local, national or famous international Shivratri fair.

4. **Promotion of wild food items and cuisines for culinary tourism and entrepreneurship development:**

Promotion of wild food items and cuisines for socio-economic uplifting and cultural tourism development urgently require linking of these items with tourism industry. The local and wild cuisine as a part of Himachali culture needs proper marketing. Only, then their preparation and consumption will foster among the visitors. It will help to provide quality food and everlasting experiences of culinary grandeur of district Mandi to the tourists [3]. The promotional efforts futher will br helpful to conserve and sustain local wild food and their ancestral traditional recipes among the coming generation. Profanation can be done by encouraging local hotels, restaurants, *dhabas* through initiation of Tourism Department. For this wild food items need to be entered in menu of different restaurants, hotels, resorts, local restaurants & *Dhabas* etc., running across the district Mandi and entire state registered under Department of Tourism and allied departments of Himachal Pradesh. Marketing of wild food items and cuisine can be done or encouraged through hoarding, advertisement in newspapers and online individually & by the Department of Tourism through both print (Newspapers, magazines, hoardings, pamphlets & brochures etc.) & electronic media (Websites, social sites like Facebook, twitter, television, FM radio and digital displays etc.). Establishment of wild food centers or shops in each tehsil of the district Mandi, in main cities of Himachal Predaesh and different states of India is required along with inclusion of visit to wild food centers or shops by local travel agents in various tour packages offered by them. Organization of regional, state and national wild food fairs & festivals at least twice in a year by Dept. of Tourism through outsourcing skilled man-power from distant villages to provide the traditional taste of these wild food items and recipes. Awareness campaigns by Department of Tourism for making local *dhaba*, restaurant & hotel owners to include local wild food cuisines in their menu. Individual effort by local restaurant owners to market wild food seasonal cuisines by installing notice boards, hoardings, making local cuisines as part of their menu and also provide wild cuisines on demand. Local entrepreneurs must also provide wild food items and cuisines as seasonal packaged services not only on their shops but also cater to telephonic / online orders. Recipes of wild food cuisines need to be developed into print and electronic media by Dept. of Tourism, Himachal Pradesh and circulated to the different *dhaba* owners as well as visitors of different festivals.

5. **Need of sustainable harvesting of wild food plants for ensuring sustainable development and sustainable cultural tourism development:**

Promotion of wild food plants for sustainable cultural tourism development will depends upon sustainable harvesting of these valuable natural resources. For ensuring sustainable development and sustainable cultural tourism development, there is an urgent need of awareness among inhabitants for sustainable harvesting and optimum utilization of wild food plants. However, due to ignorance of local people about tremendous economic, nutritive and medicinal potential of many wild food plants, most of wild plant parts get destroyed at resource level. This requires a mass awareness about latest processing technique and value addition of wild food items. Local people sometime also overexploit popular wild food items, which are high in market price without ensuring their regeneration. This may lead to decline of these valuable plant wealth in near future and our upcoming generation might be devoid of their rich nutritive, medicinal, aesthetic and economic benefits. So, harvesting need to be done by rotating habitat, keeping some reproductive parts on parent tree and domesticating rare wild food plants around home and in natural habitat.

V. DISCUSSION

It is clear from above discussion that many tourist spots of Distt. Mandi like *Rewalsor, Devidarh, Shikari Devi, Barot, Karsog valley,Sundernagar, Kamrunag lake, Pandoh Dam and Parashar lake* are among favorite destination of state, national or International tourists. Along with scenic beauty these destinations are endowed with numerous wild food items. A variety of traditional cuisine can be prepared from these, many of which are not utilized as a source of cultural tourism till date. Along with providing medicinal and nutritive value these wild food items can play very important role in uplifting rural economy. For socio-economic development of district Mandi with special focus on rural prosperity and entrepreneurship development, there is an urgent need of promoting wild food items and cuisine for culinary cultural tourism development. Himachali wild cuisines require promotional efforts on large scale, so that these can be accepted by the tourists round the word and in coming

years we may witness ―Himachali Wild Thali, & Himachali wild cuisines in menu of hotels and restaurants[9]. along with *Mandyali Thali* and *Mandyali Wild Thali* not only in Himachal Pradesh but also in other states & metropolitan regions of country.

Findings:

1 30 wild food plants of district Mandi belonging to 26 genera and 24 botanical families were documented.

2 A verity of dishes prepared from wild food plants can be employed in culinary tourism like *kachuri, bhale, patrodu, kachru, saag, pickle,* vegetable, *meetha* (Sweet curry) *chutney, sherbet, snacks, halwa, siddu, pakoras & pakora curry* etc.

3 Growing demand for healthy and organic food in recent years encouraged rural community to opt wild food plant as a source of earning. Wild Food Cuisine has a great potential to attract vositors, promote livelihood, rural prosperity & entrepreneurship development.

4 Wild food items and cuisines can be linked to tourism business through print and electronic media by hotels, restaurants, *dhabas* with initiation of Tourism Department to conserve ancestral recipes of local wild cuisines.

5 For ensuring sustainable development and sustained supply of food items wild edible plants need to be sustainably harvested and domesticated by mass awareness.

Recommendations:

1. Department of tourism must cum up with list of wild food items that can attract the tourists.

2. Wild food advertisement should be done through magazines, Newspapers, placing hoarding & banners, TV channels (Food, NDTV Good Times, TLC etc.), You Tube cooking channels, social media & make collaboration with food delivery company's like Zomato & Swiggy to promote Hamachli local cuisine.

3. Government should establish nature park in each tehsil of District Mandi where local culture, handicraft and authentic wild food can be served & promoted.

4. There is urgent need of destination management, organizations, restaurants and sustainable harvesting and processing of wild food items and cuisines.

5. A wild food processing unit should be developed in District Mandi for easy collection and processing of wild food items.

VI. CONCLUSION

Wild food plants are a great source of amusement, nutrition and medicine for the tourist coming to Mandi from round the world due to their aesthetic, medicinal and nutritive values. Red *burans* during its full bloom in spring is a center of attraction and enough to attract tourist again and again to famous tourist spots of natural beauty like *Sikari devi,Barot, Devidarh, Nena devi* and *Paraser lake* etc. of Mandi. Tourists visit these places not only for their aesthetic beauty, but also, as a buyer of many wild food items like *Kaphal, Lingad, Guchhi* etc. which they consider healthy and nutritious. Wild edible food *Lngad* and *Guchhi* are already in menu of many famous restaurants and hotels of the state and country. District Mandi is a natural home of many medicinally and nutritionally important wild food plants, which are not explored optimally for their role & potential in sustainable cultural tourism development, rural prosperity & entrepreneurship development. Therefore, there is urgent need of promoting these food items for developing culinary tourism as well as conservation of culinary traditions.

ACKNOWLEDGEMENT

The authors feel deeply indebted to the villagers District Mandi for providing valuable information about tourist influx, traditional practice of using wild food plants and using these as a source of income. Sincere thanks also go to S.S. Samant (Director, Forest Research Institute, Shimla), Chiranjit Parmar (Retired Professor of Horticulture) Sanjeet Singh (Assistant Professor of Economics), research associate Bhavna Devi, official of district statistical and tourism department, Botany department of Vallabh degree college Mandi for their encouragement. support and cooperation. A special thanks to DST Himachal Pradesh for providing fund to do research on traditional processing of wild food plants.

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