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Traditional Food and Products to Achieve SDGs in India

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Abstract

The diversity of India has conserved through indigenous innovations, practices and skills and associated with community traditions and practices. The traditional food system plays a significant role in improving and strengthens Medicare system through improvement in the quality of life including health and nutritional status, food system with improving nutrient values, consumable products for other such as fermented food products like Sinki. A major proportion of the community is suffering from health problems such as Malnutrition, Malaria, Tuberculosis etc and also facing economic crisis due to minimum involvements of traditional knowledge, food and beverages, traditional food system and ignorance of their cultural acceptability in the modern health care, livelihood programme and development programme/policies. The Indigenous diet and tradition food system found helpful to fight with modern illnesses and potentially fulfill dietary recommendations for various micronutrients. The traditional fermented food/beverage with cultural acceptability can also play an important role in the better livelihood of communities through enhanced food security and income generation via a valuable small scale enterprise option and marketable products. No poverty and Good health and Wellbeing are the most important goals of Sustainable Development-2030 will be achieved via wellbeing and development programme/policies with including culturally important traditional knowledge and traditional food of native and tribal comminutes. The present research paper aims to find out the socio-cultural and medicinal value of traditional food and products and also explore the possibilities of their marketing to achieve the SDGs.

Keywords: Indigenous food; Traditional Knowledge; Wild food; Marketable Resources.

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Background

Worldwide, India is the known for its diversity in terms of ecological, economic, social, cultural, educational, scientific, and aesthetic services are obtained through these living resources. These diversities conserved through indigenous innovations, practices and skills and associated with community traditions and practices by native and indigenous peoples. The indigenous communities have special attachments with land, kinship ties, unique culture and religious belief, material possessions that differentiate and separate them from the mainstream. The origin of India's indigenous people officially scheduled as Scheduled Tribe (ST) and constituted 8.6% of total Indian. A major

proportion of total indigenous population resides in Central India particularly in rural areas (Forest Survey of India, 2011 & Census of India, 2011). Maharashtra is the second home for a major proportion of tribal population (like Madia Gond, Bhil, Korku, Gavit, Halbi, Kolam, Andh and others). Among these communities, the edible roots, tubers, fruits, nuts flower, leaves, fibre, Bamboo, honey, wax etc. are major sources of livelihood and daily requirements (Kumar and Rao 2007). Although their traditional knowledge has conserved the biological diversities for sustainable uses and will contribute to archive SDGs (Living in Harmony with Nature, UNDB, 2011-20 accessed at 22/07/2019). Simultaneously, Their traditional food system is found culturally and nutritionally rich with including native wild foods, traditionally fermented food products (Gundruk, Sinki, Iniziangsang and Iromba), traditional beverages (Mangifera indica L. fruit pulp, Tadi from Borassus flabellifer, Salpi from Caryota urens L. and Mahua from Madhuca longifolia var. latifolia (Koen.) etc. (Ghosh et. al., 2016 and Kumar & Rao 2006). The traditional foods, beverages and products among tribal and native communities have its cultural association and some of these foods will share at specific occasion to ensure the equitable food requirement and balanced nutrient supply to all the members of the village. The traditional food system has no spaces for gender discrimination and increase the chance for enhancing livelihoods among native and tribal communities (Mishra, 2018). Indigenous food systems support to long term preservation and storing of foods for lean seasons, especially the rainy season via organic and traditionally methodology. Traditional foods are those foods which indigenous peoples have access too locally, without having to purchase them, and within traditional knowledge and the natural environment from farming or wild harvesting (Kuhnlein, Erasmus, and Spigelski, 2009).

Traditional food and Nutritional

The nourishing and local accessible properties of traditional foods will be deal with the million-dollar problem i.e. Malnutrition existed for a long time around the world and its present position in the glimpse of SDGs. The under nutrition is one of the major causes for higher morbidity and mortality rate in developing countries (Pelletier 1995). A major proportion of the tribal community are suffering from these major health problems such as Malnutrition, Tuberculosis, Malaria, Child mortality rate, unsafe motherhood, maternal mortality, Sickle cell anemia, sexually transmitted ones and genetic abnormalities, G-6-PD and poor health education (Tribal health in India: Bring the gap and a road map for the Future, MoHFW & MOTA, 2018). Although, the national health survey (NFHS-4) showed that among tribal children of under five age 43.8 % found as stunted, 27.4 % was suffering from wasted and 45.3 % of these children have low weight for age (underweight). Similarly, among tribal children under five years of age in Maharashtra, the prevalence of stunted was found 45.5% and underweight was 49.4% and 33% of children were suffering from wasting. Near about 50% of the children, less than five years of age in India are moderately or severely undernourished. (Bisai et. al., 2008, 2009, 2010, 2011, 2012). In India, traditional food habits and beliefs are serious obstacles to improved nutritional status (Park, 2015). The tribal food and knowledge will be helpful in combat malnutrition and health problems.

The previous studies showed that the regular consumption of traditional foods and traditional food system could potentially fulfill dietary recommendations for various micronutrients like Vit. A, Ca and trace elements and also found helpful to fight with modern illnesses particularly reduce the risk of diabetes, chronic heart diseases, level of cholesterol and also helpful in boost immunity and proportion of micronutrients like Vit. C, Omega-3 fatty acids, reduces inflammation and allergic reaction (Ghosh et. al., 2016). Traditional foods and products used in the dietary system were found to be nutritionally rich and culturally important in various festivals and ceremonies (Singh et. al., 2006). Traditionally food products like traditional salt which evaporated from the sea, plant ash, sea vegetables, or salty foods like roe, contains trace minerals such as iron, manganese, zinc, and copper (Ken Cohen, 1998). The tribal food and knowledge will be helpful in combat malnutrition and health problems (Sarkar, 2019).

Many wild foods are higher in nutrient content (calcium, iron, magnesium and vitamin c) than similar cultivated foods (Native Foods and Nutrition, 1995). The traditional underutilized fruit Beal contains vitamin and mineral contents include calcium, phosphorus, iron, carotene, thiamine, riboflavin, niacin and vitamin C with possess analgesic, anti-inflammatory, antipyretic, anti-microfilaria, antifungal, hypoglycemic, antidyslipidemic, immunomodulatory, antiproliferative, wound healing, anti-fertility, and insecticidal abilities (Neeraj et.al., 2017).

Medicinal Values of Traditional foods

FAO, 1998 has highlighted that the around the world, there are traditional beliefs that some fermented foods and beverages have a medicinal value such as

protective effects against the development of cancer. It will also improve the system and improve nutritional level. The rich nourishing and medicinal, low investments and rich in natural properties of traditionally food of native/tribal communities have significant contribution in achieving important goals of sustainable development goals (like Good Health and Well-being; Zero Hunger; Decent wok and Economic growth etc.) and strength the modern Medicare system (Ghosh et. al., 2016). The Indigenous diet was found helpful to fight with modern illnesses and reduce the risk of diabetes, chronic heart diseases, level of cholesterol. It also assists in improving immunity, reduces inflammation and allergic reaction, and provides proportion of micronutrients like Vit. C, Omega-3 fatty acids. In many communities, there are traditional beliefs that some fermented foods and beverages have a medicinal value such as protective effects against the development of cancer. Traditionally fermented foods may improve the digestive system and provide better nutrition (FAO, 1998). Medicinal food can be considered to position itself between traditional foods and pharmaceuticals (Eussen et. al., 2011).

Hippocrates, 500 BC stated that the let food can be used as medicine and medicine can be used as food. Traditional food "turmeric" also used as medicinal foods (Ramalingum and Mahomoodally, 2014). Turmeric (Curcuma longa) contains the active ingredient curcumin which is considered to have antioxidant, anti-inflammatory, and anticarcinogenic properties (Saunders and Wallace, 2010). The following traditional kitchen food also used for its medical properties, these are: Garlic (Alliumsativum) increases HDL levels, antihypertensive effects, Peppermint (Mentha piperita) used to treat digestive problems, Lamiaceae family were used to cure spasmodic gastric intestinal complaints, cough, bronchitis, laryngitis, and tonsillitis and used as a vermifuge (Brierley and Kelber, 2011 & Roby, 2013).

The traditional food, ripe fruit pulp of Sugar apple (*Annona squamosa Linn.:* Annonacea) contains calories, sugar, amino acid, lysine, carotene and ascorbic acid. It's also use as an insecticidal and antitumor agent, antidiabetic, antioxidant, antilipidemic and anti-inflammatory agent (Cheema, 1985; Shirwaikar, 2004; Gupta, 2008 and Yang, 2008).

Artocarpus altilis Parkinson Fosberg (*Moraceae*): Breadfruit contains around carbohydrates, calcium, potassium, phosphorus, leucine, lysine, linoleic acid and niacin (Golden, 2007). The following medicinal food is rich in various chemical component and nutritional values and used in prevention and treatment of several diseases a like Artocarpus heterophyllus Lam. (Moraceae): Jackfruit, Eugenia jambolana Lam. (Myrtaceae): Jambolan, Eugenia uniflora Linn. (Myrtaceae), Lagenaria siceraria (Molina) Standley (Cucurbitaceae): Bottle Gourd, Momordica charantia Linn. (Cucurbitaceae): Bitter Melon, Moringa oleifera Lam. (Moringaceae): Drumstick Tree and Punica granatum Linn. (Punicaceae): Pomegranat, Solanum nigrum Linn. (Solanaceae): Black Nightshade (Ramalingum and Mahomoodally, 2014). Aonla (Emblica officinalis), Bael (Aegle marmelos), Wood Apple (Feronia limonia), Jamun (Syzygium cumini), Ber (Ziziphus mauritiana), Karonda (Carissa carandas), Chironji (Buchanania lanzan), Tamarind (Tamarindus indica) etc. are underutilizied food are rich in nutritional and medicinal value and used as main core of many ayurvedic formulations (Pal et. al., 2018).

The indigenous fruits or underutilized fruits like Aonla contain rich amount of protein, fat, crude fibre, starch, sugars, minerals and vitamins (particularly rich in vit. C) and used in treatment of several ailments like tuberculosis of lungs, asthma, bronchitis, scurvy, diabetes, anaemia, weakness of memory, cancer, tension, haemorrhage, leucorrhoea and discharge of blood from uterus, influenza, cold, loss and grayness of hair etc. The powder form of this indigenous fruit was also used in duration of world war for treatment (Morton, 1960 and Kalra, 1988).

Further indigenous fruit Wood apple (Feronia limonia) known as monkey fruit, curd fruit and kathbel and contains 74% moisture, 7.3g protein, 15.5 g carbohydrates, 170 mg riboflavin, 2 mg vitamin C per 100 g of pulp and minerals, especially 0.17% calcium 0.08% phosphorus, polyphenols, phytosterols, saponins, tannins, coumarins, triterpenoids, vitamins, amino acids and 0.07% Iron (37, 38). The wood apple used in curing of several diseases like bone, joint pains, dysentery, habitual constipation, liver, cardiac tonic and diarrhea, dysentery and scurvy (Diengngngan and Hasan, 2015).

Jamun is full with high nutritive and medicinal values like anthocyanin (Chaudhary & Mukhopadhyay, 2012 and Morton, 1987). It used in preparation of several food products with high nutrient value like beverages, squash, jam, jelly and wine and used to treat a range of ailments, diabetes mellitus and other diseases (Sagrawat et al., 2006). The Jamun is also effective in the treatment of inflammation, ulcers and diarrhea (Chaudhary and Mukhopadhyay, 2012).

Traditional food and Livelihood

Indigenous fermented food and beverages products with culturally acceptable can play an important role contributing to the livelihoods of rural and pri-urban

dwellers alike, through enhanced food security, and income generation via a valuable small scale enterprise option(FAO-Traditional fermented food and beverages for improved livelihood,2011 accessed on 19 December,2020).Traditional sweetener have major contribution in Indian economy and it also a major source of livelihood. Rao et. al., 2007 have conducted a study on a traditional sweetener that is Jaggery.

Total of the worldwide production, more than 70% of the jiggery indigenous sweetener is produced in India. In production of Jaggery and Khansari over 2.5 million people engaged and it is one of dominant cottage industry in rural India (Nerkar, 2004; Alam, 1999; Mungare et. al., 1999 and Indian sugar industry, 1999). The chance of incidence is less of diabetes and lung cancer are reported in Jaggery consumption as compare to sugar consumption (Sahu and Paul, 1998 and Rao et. al., 2007). It also worked as protective agent for worker in industry in smoky environments (Rao et. al., 2007). However, now several new products have been developed from wild edible fruits and traditional foods by value addition namely aonla candy, jam, herbal jam, chutney, pickle, squash, juice, sharbat, vinegar etc and these products have contributing in livelihood of tribal and natives communities (Lim, 2012).

The indigenous fruits also used for preparation of powder, preserve, nectar and toffee (Singh, 2012; Sampath, 2012 and Bakhru, 1997). The wood apple also used in preparation of food products like preserve, candy, sherbet, juice, chutneys, jam, jelly and squash (Singh et. al., 2019).

Table1: List of Traditional food used as Marketable products.

Traditional food	Marketable Products	Source
Aonla	Candy, jam, herbal jam, chutney, pickle, squash, juice, sharbat, vinegar etc.	Lim, 2012
Bekang (Prepared by Soyabean)	Sell through Mizo Hmeichhe Insuihkhawm Pawl network	Lim, 2012
Wood apple (Feronia limonia)	Candy, sherbet, juice, chutneys, jam, jelly and squash	Singh et. al., 2019
Jamun	High nutrient value like beverages, squash, jam, jelly and wine	Sagrawat et al., 2006
Ber (Zyziphus mauritiana)	Chutney, dried ber, murabba, jelly, wine etc	Singh et. al., 2019
Chironji (Buchanania lanzan)	Sweets, commercial fruit, squash, used in serve drinks, nectar and sweet oil	Kumar et. al., 2012
Wild fruits, Wild Vegetables & Wild honey	Sources of high sugars, proteins, starch and, carbohydrates and used in sweets local food industry	Das, 2016; Sing and Garg, 2006

Traditional Food, Environment and Cultural Prospects

Environment in term of climate and the topographical situation has been responsible for isolating and preserving the tribal culture, their health and wealth and their foods/food system(Rao, 2003). Jhum Cultivation culture of tribal population of North-Eastern region is ensure a large range of ethnic foods rich in nutrition and compatible to culture and ethnicity of tribes (Dutta and Dutta, 2005). Rural women of North-eastern India have selected many wild plants and non-vegetarian foods through trial and error for their traditional food system (Kar, 2004).

The indigenous knowledge of Northeast tribal and native communities has supports to the richest reservoir of plant diversity in India and is one of the 'biodiversity hotspots' of the world, supporting about 50% of India's biodiversity (Mao & Hynniewta 2000).

In worldwide with modern agriculture and development, the use of wild plants is quite common as food sources (Scherrer et. al., 2005; Bussmann et. al., 2006; Bussman & Sharon, 2006; Kunwar et. al., 2006). Simultaneously the nature offers many resources to enjoy their livelihood like wild food products from forests. (Dovie DBK et. al., 2002). Many previous studies have emphasized on the diversity and value of traditional vegetables as sustainable food sourcesand as livelihood sources (Kala, 2007; Lindeberg et. al., 2003; Sundriyal & Sundriyal 2001, 2003; Nautiyal et. al., 2003; Dhyani et. al., 2007). Traditional foods also identity of many ethnic groups (Asati & Yadav 2003; Medhi et. al., 2013). The ethno botanical resources also used in traditional foods which based on the location specific demand, culture, economy, ethnicity, food habit and etc (Singh, 2004-06 and Dutta & Dutta, 2005). The tribal women have developed a variety of conservation and sustainable harvesting practices, including adaptive management methods for culturally important species used for foods (Singh et. al., 2007). Wild edible plants that are neither cultivated nor domesticated but found in natural form and used as sources of food and helpful in fulfill the nutritional and medicinal requirements (Das et. al., 2016 and Grivetti & Ogle 2000).

Traditional foods and Tribal communities

The Korku's of central India use 30 ethno-vegetable plants for food preparation and their traditionally

fermented food used to improve health and nutritional status (Devarkar, 2018). The Dongaria Kondhs of south Odisha to fulfil their nutritional requirement used sustainable traditional food stuffs like cereals, pulses, edible plants, fish, snail, crab, turtle, edible procurement of mushroom, roots, tuber and insects, lizards, rodent and animal food products (like pigs, buffalo, cows, sheep, duck and chicken etc). They extract traditional drinks from date plam, salap (caryota uren), mahua (mahua latifolia) folers, fermented rice and ragi through their traditional knowledge (Samanataraya, 2017). Samantaray, 2017 highlighted that the Dongarias tribe eat foods mainly maize, millet, redgram (kandul), baila and cowpeas (jhudanga), rani kanda, langala kanda chicken, mutton, buffalo meat, beef and pork and they are fond of drinks which carries nutritive values are irpi kalu (mahua drink), mada kalu (sago palm), fermented drinks kadali kalu (banana rice), pranga kalu / pendom (molasses/ jiggery) and guda kalu (molasses). Devarkar (2018) have found that the Korkus use the diversity of wild leafy vegetables which are belonging to 20 genera and 17 families. They also used these for medicinal purposes. The tribal population lives in a rich habitat replete with food resources and food system with improving nutrient values, consumable products for other such as fermented food products (Gundruk, Sinki, Iniziangsang and Iromba), traditional nutrient-rich food & beverages (Mangifera indica L. fruit pulp, Tadi from Borassus flabellifer, Salpi from Caryota urens L. and Mahua from Madhuca longifolia var. latifolia (Koen.) (Ghosh et. al., 2016 and Kumar & Rao, 2006).

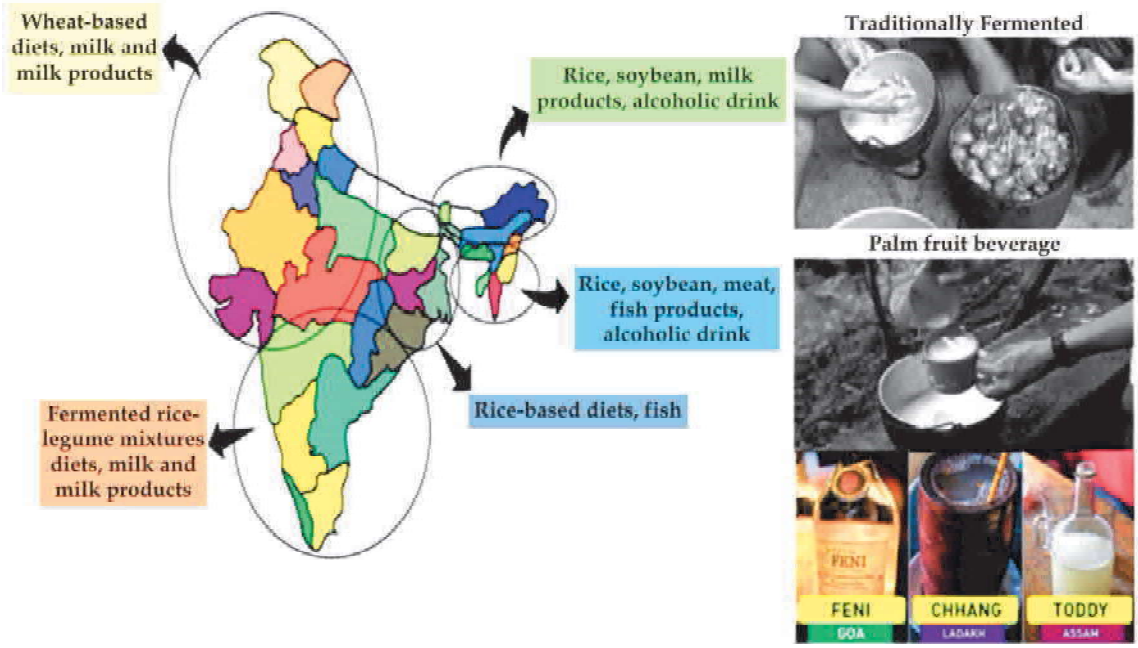
Fermentation is one of the oldest and most economical methods of preserving the quality and safety of foods. It also improves digestibility by breaking down proteins within foods and enables the production of organic acids, nutritional enrichment, reduction of endogenous toxins, and reduction in the duration of cooking (Sekar & Kandavel, 2002). The fermented foods prepared from soybean, bamboo shoots, rai and lai patta were found to be compatible with the nutritional security and subsistence economy of tribal women in north-eastern tribal women (Singh et. al., 2007). Das et. al., 2016 have reviewed the diversity of traditional and fermented foods of the Seven Sister states of India are serves as a source of income to many rural people, who prepare them at home and market them locally. The traditionally fermentation processes of food contribute to the food security by minimizing the wastage and loss of various ethnic food by increasing their availability and market value (Rolle & Satin, 2002). The antimicrobial and antioxidant potential to the food is increased by traditional fermentation processes using number of secondary metabolites and bioactive compounds of the foods (Vijayendra and Halami, 2015).

The Indian fermented foods/beverages used for medicinal and marketable products are elaborated in Table 2.

Table 2: List of fermented foods as Medicinal and Marketable products.

Fermented food/ Beverages	Uses/Marketable Products	Source
Kinema	Reduce cholesterol effects	Sarkar & Tamang 1995; Sarkar et. al. 1996, 1998; Tamang & Nikkuni 1998;
Hentak (fermented fish paste)	During pregnancy; recovering from sickness or injury	Sarojnalini & Singh, 1988
Chyang (finger millet)	Post delivery to increase their internal strength	Thapa & Tamang, 2004
Sinki (radish tap-root)	Cure against diarrhoea and stomach disorders	Tamang, 2010
Gundruk	Milk efficiency of mothers	Tamang, 2010
Chuwak (rice beer)	Improve growth of intestinal pathogenic microorganisms and provides elevated antioxidant, antimutagenic, cardiovascular free radical scavenging, and immune -stimulatory activities	Das et. al., 2014; Ghosh et. al., 2015 Ray et. al., 2016).

Another underutilized indigenous fruit Ber (*Zyziphus mauritiana*) is one of the richest sources of nutrient values and containing good amount of vitamin C, A, and B complex, and also of Ca, K, Br, Rb, and La (Tiwari and Banafar, 1995). Several markets products will also prepared by Ber, these are chutney, dried ber, murabba, jelly, wine etc (Singh et. al., 2019). It has medicinal properties for curing ulcer, fever, dysentery and diarrhea, sore throat, bleeding gums, blood purifier, appetizer and wounds (Diengngan and Hasan, 2015; Morton, 1987; Bolada, 2012 and Rathore, et al., 2012). Karonda (*Carissa carandas L.*) is another indigenous fruit and rich in iron, vitamin C, protein, carbohydrates, fat, fibre and calcium and contains carisol, â-caryophyllene, carissone, carissic acid, carindone, carinol, ascorbic acid, lupeol, and â-sitosterol and alkaloids, flavonoids, saponins and large amounts of cardiac glycosides, triterpenoids, phenolic compounds and tannins (Reshu et. al., 2017,



Nalawadi and Jayasheela, 1975 and Cheema & Cheema, 1971).

Figure 1 Geographically distribution of commonly used traditional foods and fermented products of India.

The Karonda are traditionally used for medicinal treatments of malaria, epilepsy, nerve disorder, relieve of pain and headache, fever, blood purifier, itches and leprosy (Rahmatullah et. al., 2009). Chironji (Buchanania lanzan) is also having nutritional and medicinal values. It is a potential source of nutrients like protein, fat, dietary fiber, and energy. It is very good source of phosphorus, calcium, magnesium and iron (Singh et. al., 2019). This have been power to fight against disease and provided rich source of energy (Khatoon et. al., 2015).

The medicinal and nutritional properties of these cited underutilized and traditional fruits have major segments in production of medicinal products and edible products, and these are majors sources of livelihood of native population and others industrialist. Kinema, a fermented product of the north-eastern region, showed increased level of total content of amino acids, riboflavin, and niacin, which possess cholesterol-lowering effects and rich in linoleic acid with all essential amino acids (Sarkar & Tamang 1995; Sarkar et. al. 1996, 1998; Tamang & Nikkuni 1998; Sarkar et. al. 1996 and Sarkar et al. 1997). Similarly, Hentak (fermented fish paste) it is sometimes given to women in the final stages of their pregnancy (confinement) or patients recovering from sickness or injury (Sarojnalini & Singh, 1988).

Chyang, a fermented finger millet, is given to the women post delivery to increase their internal strength (Thapa & Tamang, 2004). Sinki, a radish tap-root fermented product, is used by the local tribes as a cure against diarrhea and stomach disorders (Tamang, 2010). Gundruk improves the milk efficiency in new mothers (Tamang & Tamang, 2010). Fermented rice bran has been reported to possess anticancer properties against various types of cancers, including colon, stomach, and bladder (Phutthaphadoong et. al., 2009). The fermented rice beer is rich in a number of bioactive compounds, such as maltooligosaccharides,maltotetrose, maltotriose, and maltose, which are low in calories, inhibit the growth of intestinal pathogenic microorganisms and are very nutritious for infants and the elderly (Ghosh et. al., 2015). The rice beer (traditionally fermented beverage) provides elevated antioxidant, antimutagenic, cardiovascular free radical scavenging, and immune-stimulatory activities (Das et. al., 2014; Ghosh et. al., 2015 and Ray et. al., 2016).

Some of the most common wild edible fruits that are used by the tribal people for their medicinal effects against various diseases such as stomach disorders, intestinal worms, cough, cold, and fever are elaborated. Aegle marmelos (Bael) are effective against diseases such as chronic diarrhea and dysentery and constipation (Sharma et. al., 2007). The Rhus javanica is an effective cure for diarrhea and dysentery (Das et. al., 2016). Eryngium foetidium is widely used for curing dysentery, reducing the fever due to its cooling properties. Eurya acuminate has used as traditional medicine due to its emetic and purgative effect. Myrica nagi bark is used as the remedy for anemia, asthma, bronchitis, cough, chronic dysentery, fever, liver complaints, piles,

sores, ulcers, and urinary discharges. It also used for treatment of earache, headache, diarrhea, and paralysis (Panthari et al. 2012). The tribal communities of northeast region traditionally fermented and prepared diuretic tonic (via extracting juice) from Benincasa hispida (Rout et al. 2012). Houttuynia cordata(Mosandri) and Adhatoda vasica are regular food products of tribal communities and have medicinal properties to treating intestinal worms. Alpinia nigra is widely used by the tribal people for its anti-helminthic properties (Roy et. al., 2012 and Sivanathan, 2013).

The Phlogacanthus thyrsiflorus use for treating fever among tribal communities and also used as food. It also found to be effective against pox, skin diseases like sores and scabies (Kalita & Kalita, 2014 and Phurailatpam et. al., 2014). Indigenous peoples of Mizoram used Antidesma bunius to against gastric intestinal problems and the matured leaves of this plant are used as an antidote to snake bites, and the young leaves are boiled and used against the disease, syphilis, and various skin disorders (Hazarika et. al., 2012). The wild edible plants and parts like yam, mustard leaf and wild cabbage that are preserved for lean and thin periods by drying.

Worldwide more than hundred of indigenous foods (plants, insects, and fungi etc.) are rich in nutritional and medicinal values and used by native communities (Boa, 2004; DeFoliart, 1992; Kuhnlein et. al., 2009 and Rathode, 2009). Jerath et. al., 2015 have reported that the Indigenous plants and wild edible fruits and food have medicinal properties and used by the native indigenous group in to cure and treatment of various health problems and management of pain and fever and in improving overall health such as Beng saag with its triterpenoid and saponin contents used to report to ease stomach ailments and jaundice, maintain blood pressure and keep the heart healthy, reduce blood sugar, and improve mental capacity (Gohil, Patel, and Gajjar 2010).

Conclusion

Worldwide, India is the known for its diversity in terms of ecological, economic, social, cultural, educational, scientific and aesthetic services are obtained through these living resources and the tribal population of India largely depend on forests for their basic needs like food, fodder, medicines, timber, and shelter, etc. Their food system also associated with theses bio diversity and they were consume many wild and traditional foods as traditional food and in some special circumferences theses foods also used for medical properties and nutritional properties. The traditional foods and beverages can change the present food industry and create future by providing nutritional rich foods and medicinally enhanced food and products that are cost-effective, cultural and environmentally friendly.

The TFs and products seek to disseminate and commercialize valuable solutions and strengthen the native/global food industries or enterprise. The traditional fermentation of foods also offers considerable potential for stimulating development in the food industry in light of their low cost, scalability, minimal energy and infrastructural requirements and the wide consumer acceptance of fermented products in many countries. The involvements of TFs and products in modern food system, agricultural industrialization, globalization of foods/products and relevant development programmes will reduce the chance of emerging lifestyle disorders, malnutrition, food based economical burden, prevalence of hunger, food wastage, toxicity of modern food and agriculture etc.

The traditional ferment food will also be used as a market product which will improve socioeconomic conditional and enhance empowerment among native communities. The traditional food and products will play a significant role in conservation of natural resources, water recycling and harvesting, arts and crafting skills, food system with improving nutrient values, consumable products for others.The use of indigenous foods like mid-day meal programme will be used to nourish children and due to cultural acceptance and importance. The documentation of meditational knowledge and food system will also help to other community and increases the livelihood via marketable products.

The traditional food system with gender equality properties, no sex/age-discrimination and kitchen garden properties are directly and indirectly associate and supports to following SDGs like Gender equality, Responsible consumption and production, Climatic balanced and others. The TFs and products with low cost, nutritional/medicinal and geographical and cultural acceptance properties will play significant role in achieving Zero Poverty, Zero hunger, Good health and well being goals of SDGs, 2030 and Transforming Health of Indian-ICMR, 2030.

The researches on traditional food and products may be helpful for policymaker, researcher and others who worked on livelihood programmes, health and nutritional improvements programme, strategies for agricultural and food industries, ingenious enterprise and food-based Start-ups etc.

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