

## Traditional, ethnic and fermented foods of different tribes of Manipur

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Traditional knowledge exists among different tribes on preparing boiled foods, fermented foods, beverages and nutritionally rich traditional foods from various indigenous crop plants, forest products and meat of wild and domesticated animals. Manipur has great ethno-cultural diversity, with two major tribes, the *Nagas* and the *Kukis*. The *Naga* tribe comprises the *Maring*, *Mao*, *Maram*, *Kabui*, *Tangkhu*, *Tadubi*, *Kolya*, *Khoiras/Mayangkhong*, *Koirangs*, *Chirus* and *Maring* where as the *Kuki* tribe comprises the *Mizos*, *Paite*, *Thadou* and *Vaiphei*. *Meitei* and *Meitei Pangals* are two non tribal communities of Manipur who has individual identity. The traditional foods of the *Manipurians* comprises *Iromba*, *Champhu*, *Kangshoi*, *Hawaichar*, *Soibum*, *Ngaree*, *Paknam*, *Chagem pomba*, *Kangshu*, *Hentak*, *Khazing*, *Heikak*, *sticky rice chapatti/bread*, etc. Alcoholic beverages made up of rice are very common in almost all the festivals of the tribal peoples of Manipur locally called as *Yu*. Among different produces, the people of Manipur have the habit of taking variety of leafy vegetables which are available in plenty in the dense forests.

**Keywords:** Manipur, Traditional foods, Fermented foods, Bamboo products, Ethnic foods

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Manipur is one of the eight states of Northeast India, bounded by Nagaland in the North, Mizoram in the South, Assam in the West, and by the borders of the country Myanmar in the East as well as in the part of South. The state lies at latitude of 23°83'N - 25°68'N and longitude of 93°03'E - 94°78'E. The total area covered by the state is 22,327 km<sup>2</sup> with the population of 23, 88, 634. The major crops of this state are wheat, pulses, paddy, maize, sugarcane, potato and mustard. The major fruits are pineapple, banana, papaya, passion fruit, orange, lemon and mango. The major vegetables are cabbage, cauliflower, pea, french bean and tomato. The major forest products are oak, teak, pine, cane, bamboo, *leihao* and *uningthou*. The major export products are bamboo shoot products ginger, pineapple, mushroom, etc<sup>1</sup>. Glutinous rice is cultivated in the valley and inter-most river basins of the hills. Transplantation methods in the valley cultivations led to substantial growth of population with a distinct peasantry, associated with riverine and lacustrine village settlements.

The Government of Manipur had recognized 32 different tribes. They are: *Animol*, *Chothe*, *Kacha Naga*, *Kom*, *Maring*, *Paite*, *Sema*, *Tarao*, *Anal*,

*Gante*, *Kharem*, *Lamgang*, *Mao*, *Poumi Naga*, *Simte*, *Thadou*, *Angami*, *Hmar*, *Koirao*, *Luisai*, *Mansang*, *Purum*, *Sahlte*, *Vaipei*, *Chiru*, *Kabui*, *Koirangm*, *Maram*, *Mayon*, *Ralte*, *Tangkhu* and *Jou*. These tribes come into two major tribes, i.e. i) *Naga*: The *Naga* tribe comprises the *Maring*, *Mao*, *Maram*, *Kabui*, *Tangkhu*, *Tadubi*, *Kolya*, *Khoiras/Mayangkhong*, *Koirangs*, *Chirus* and *Maring*<sup>2</sup>. They occupy the Northern and North-western hills of Manipur. The staple food is rice which is cooked either in earthen pot/metal pot or in bamboo tube. Young bamboo shoots are collected during summer season and are peeled, dried and then added with rice for consumption. ii) *Kuki*: They are also known as *Khongois*. They occupy the South western and South eastern hills and is wide spread in the district of Churachandpur, Tangnoupal and Sadar hills in the northern Manipur. This tribe comprises the *Mizos*, *Paite*, *Thadou* and *Vaiphei*<sup>2</sup>. Rice is the staple food and there is certain restriction in the consumption of animal flesh. Rice beer (*Yu*) is the most important alcoholic beverages in all the festivals of this tribe<sup>3</sup>. Dried fish is eaten by almost all the ethnic groups. All type of domestic animals is eaten except cat. They also eat locusts, dog, all kinds of birds and frogs.

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*Meitei* and *Meitei Pangals* are the communities of Manipur which does not belong to tribes. The *meiteis* are distributed in the main valley and fish is the common article of diet. Rice is the staple food and wheat is not taken in the form of *chappatti* or *roti*. The majorities of *Meitei Pangals* occupies the Thoubal district and follow the Islamic way of life. The region as a whole provides an exotic mosaic, rich in the tapestry of colour, rhythm and movement<sup>3</sup>. All the ethnic groups living in the hills and the valley prefer wild plants/plant parts as foods to introduce cultivate plants. Though many of these plants are available, nowadays the number and quality of species are much less than past. Very few numbers of introduced plants are replacing this vast number of wild plants.

Different tribes have their own traditional foods and beverages. The traditional food habits of tribal population of the state are very simple and have to do with the festival and rituals which forms a mosaic of ethnic cultural combinations<sup>3</sup>. Traditional knowledge exists among different tribes on preparing boiled foods, fermented foods, beverages and nutritionally rich traditional foods from various indigenous crop plants, forest products and meat of wild and domesticated animals. These foods are part and parcel of their social spectrum of life. Traditional foods are not only rich in nutrients but also have certain curative properties against many diseases and disorders<sup>4</sup>. *Meitei* diet has been influenced by many other cultures due to various socio political reasons. Sanskritisation is one of the biggest factors that influence the change of dietary habit. From the meat eater they became fish eater, and those who accepted the Hinduism to its extreme even gave up fish and became pure vegetarian. The *Manipuris* are usually two meals eater, one in the morning and the other in the evening /night. Occasionally, enjoy taking *Sinju* vegetable salad with fermented fish or roasted gram flour. Alcoholic beverages of different tribal communities have received attention of several ethnobotanists and anthropologists. Introduction of fast foods thorough globalization process, accompanied by decrease in the use of traditional foods of local tribe has resulted in many diseases notably diabetes, heart diseases, and anaemia particularly to pregnant and lactating women<sup>5</sup>. Though the new generation of tribes adopted to modern food habits, due to its importance, it is imperative to document the traditional food products

and their importance among different tribal communities.

### Methodology

The present study was conducted in Manipur state covering all the districts. Thirty different villages covering 200 different tribal people were conducted to make the final conclusion. The population is covered in such a way that it comprises of more than 50% elders as they practice those traditional practices still in household. The response of all sampled respondents was recorded. A questionnaire after pretesting and thereafter editing by amending, recording errors and deleting queries that were obviously erroneous was filled through structured participatory interviews at the site residence of rural people. Secondary information was collected from district agriculture information centre, books, reports, and electronic and non- electronic sources. The use of multiple sources of information was intended to increase `construct validity of the case study in terms of seeking convergent lines of inquiry.

### Results and discussion

#### Dietary pattern

Staple diet of the *Manipurians* is rice mixed with *Bora/Bada* fried or roasted peas or gram or *Kangou*, the fried vegetable and pulse. Rice is also eaten with seasonal vegetables cooked with smoked, dried or fermented fish. The *meitei* loves it mixed with vegetable chutney (*Iromba*)/boiled delicacy (*Champhut and Kangshoi*). This is a mixture of various boiled vegetable mashed with fermented fish and chillies. Others like *Parkia roxburghii* (*Yongchak*), lotus rhizome (*Thambou*), green Makhana (*Thangjing*), etc are *Manipurians* exclusives. The *Meities* eats more than hundred varieties of leafy vegetables. They learnt a very special art of fermenting soyabean, bamboo shoots and fishes from time immemorial. They make *Hawaichar* from soyabean, *Soibum*, *Shoidon* and *Soijin* from the bamboo shoots. *Ngaree* and *Hentak* are made from the small fishes. Carefully done fermentation is very important for the safety reasons. Otherwise occasional food poisoning is heard from *hawaichar* and mixed vegetable salad/chutney<sup>7</sup>.

*Iromba* an eclectic combination of fresh vegetables, bamboo shoots, fermented fish and chillies. *Heithongba* is a pungent dish of lemon, sugar, salt, *aonla* and tamarind. *Maroi morok thongba*, is another

type of speciality. *Morok* stands for green chilli, as a result, this dish is bit hot in taste. *Madhurjan* is a sweet made of milk, sugar and gramflour. A black lentil called *Ooty* is compulsory at all feasts. Vegetables consist of cauliflower/*lai patha* called *Sak* with pumpkin made into a hot and spicy curry along with spinach and banana inflorescence. A wonderful salad called *Sinju* made of finely shredded vegetables and raw papaya, tossed in herbs. A dessert made of rice called *chak-hao* is deep violet in colour and is combined with milk, sugar, coconut and dry fruits. *Suktani* is a combination of neem leaves, *basak* leaves and sugar. *Sweet Kabok* is made up of molasses and rice is a famous snack among the *Manipuries*.

### Preparation of some Traditional foods

#### Soyabean products

##### *Hawaichar*

*Hawaijar* is an indigenous traditional fermented soyabean with characteristic flavour and stickiness. It is consumed commonly in the local diet as a low cost source of high protein food and plays an economical, social and cultural role in Manipur. There is intent to upgrade the status of *Hawaijar* in order to increase its marketability and profitability. In the traditional method of *Hawaijar* preparation, medium and small sized soyabean (*Glycine max* L.) seeds are cleaned and sorted. The graded soyabean seeds are dipped in water where the water level should be twice than that of the seeds and leave it overnight. The seeds are washed properly for two to three times with running water which is followed by cooking either by using pressure cooker or by conventional methods. The solid portion, i.e. the cooked soybean was placed in a bamboo basket after draining off the water portion. The greasy portion is washed with lukewarm water till it becomes non-greasy, and the remaining water was drained off completely and the content is turned upside down once or twice. The water portion is said to be useful in washing cloths in olden times. The drained water is believed to help in curing TB and also good for women. Thrice folded cloth is placed in a coarse bamboo basket. A thick layer of *Ficus hispida* leaves, locally known as *Asse heibong* or banana (*Musa* spp.) leaves are placed upon it. The cooked soyabeans are placed in alternate layers above that. At the end, another cloth which is folded 2 to 3 times is placed and then the whole content is tied tightly with another cloth to make air tight. This should be placed under the sun

during day times and near the fireplace at night in order to let the fermentation process complete properly and also to avoid maggots damage. The fermented soyabean, i.e. *hawaichar* is ready in 3 days during summer and during winter it takes 5 days. In order to add more flavour it was kept near the fireplace as long as possible. Ancient time's rice husks were used instead of cloth. *Hawaichar* can be eaten raw with salt and chilli or cooked, etc. The preparation of *hawaichar* by natural fermentation leads to variation in quality due to varying methodologies, fermentation time and temperature of incubation. The fermentation takes place under uncontrolled environmental conditions that often leads to unsuccessful fermentation and poor quality products which might be due to native fermenting microflora<sup>8</sup>.

The traditional *hawaichar* is characterised by its alkalinity (pH 8.0-8.2), stickiness, and pungent odour. The preparation of *hawaichar* is very simple, similar to that of Japanese *Itohiki-Natto* (the whole soyabean seed is used for fermentation)<sup>9</sup>. But in *Kinema* (another Indian fermented soyabean), it is dehulled and cracked into pieces before fermentation<sup>10</sup>. Unlike *Kinema* there is no addition of firewood ash during *hawaichar* production. Microorganisms were isolated and identified in *hawaichar* by molecular techniques and resulted that three major phylogenetic group, i.e. *Bacillus* group comprising *Bacillus subtilis* and *Bacillus licheniformis*, and *Staphylococcus* spp. comprising *Staphylococcus aureus* and *Staphylococcus sciuri* are involved<sup>11</sup>.

##### *Dried Hawaichar*

There are two types of dried *hawaichar* commonly prepared by the people of Manipur. The first method involves the common technique of making *hawaijar*. After one week of preparation, salt is mixed along with the *hawaijar*. The whole content is poured in a bamboo (any bamboo with a longer internodes, bigger hole and thinner outer part) where it is sealed with the bamboo leaves and tied very tightly with a plastic sheet. This is then placed in top of the fire place in the kitchen for one week. The *hawaijar* obtained from this has lesser smell and taste better. This can be kept for a longer period of time. The second method is to dry the fermented soyabean i.e. *hawaijar* in direct sunlight and make it moisture free.

##### *Pickled hawaijar*

This method is practiced recently by the people of Manipur. The fermented soyabean i.e. the *hawaijar* is

fried in oil along with some *masala* and add a pinch of salt to taste. This is then filled in a bottle along with the excess oil and sealed. This can be stored for a longer period of time.

#### **Paknam**

Onion leaves, chilli, salt, half tablespoon of sodium bicarbonate, turmeric, spices, *garam masala* and *ngari* are required for the preparation of *paknam*. All the contents are smashed properly then gram flour is added into it, which should be mixed thoroughly and placed in one or two layers of turmeric leaves. The whole content is baked on a hot pan and a heavy weight is placed upon. After 30 to 45 minutes it imparts a typical flavour which indicates the product is cooked. *Paknam* can be stored for a day or two at the maximum.

Tree mushroom *paknam* can also be prepared where all the ingredients are the same except that no *besan* and sodium bicarbonate is added and tree mushroom is added along with the other ingredients. *Nganam paknam* is another kind of *paknam* where small fishes are used while preparing the *paknam*. In this case also, no *besan* (gram flour) and sodium bicarbonate is added while small amount of asafoetida and cut green chillies are added.

#### **Chagem Pomba**

Cucumber, carrot leaf, squash and its leaves, etc are taken and then broken rice is added to it of about 50 gm. Some other vegetables which are cut into small pieces can also be added. The contents are fried in mustard oil, but stirring with spoon is restricted. All the spices are added and a small amount of asafoetida to it and kept it for at least 2 whistles in pressure cooker. Fennel (*Foeniculum vulgare*) was added when almost cooked, instead of coriander in it.

#### **Sea food based products**

##### **Ngari**

For the preparation of *ngari* (fermented fish), a typical small type of fish locally called as *phabou nga* is used. Daily meal of *Manipuries* is never completed without *ngari*, which is eaten either in the form of chutney (*iromba* or *morok metpa*) or as an ingredient in other curries. The *phabou nga* is washed thoroughly with water and sundried properly till it becomes crispy. Crushing of the fish head should be done properly with the help of a hammer. A special vessel is used for the preparation of *ngari*, where mustard oil is plastered, the dried fish is then stacked

in proper order. The container is closed air tight after filling. In order to make it air tight, sand is placed on the top and fermentation is allowed to occur naturally. It takes about 3 to 6 months to mature and ready to eat. It imparts a typical odour which indicates that the fish is well fermented and ready for eating.

##### **Kangshu**

*Kangshu* is another typical traditional food which is eaten by the *Manipuries*. *Centella asiatica* (Indian pennywort) is cooked in a pressure cooker up to two whistles after washing with water for the preparation of *kangshu*. Product is cut into small pieces after draining the excess water. *Morok metpa* (mixture of *ngari*, chilli and salt) is added in it and is mixed thoroughly. To add flavour roasted prawn or fish is added and finally coriander is added. *Kangshu* can also be prepared by using bamboo shoots instead of *Centella asiatica*. In this case, the bamboo shoots are cut into pieces after washing with running water and kept overnight, and then the next day it is again washed and cooked in a pressure cooker. Thereafter the same procedure is followed as in case of the above.

##### **Hentak**

*Hentak* was used by the *Manipuries* before *ngari* came into existence. *Phabou nga* or *ngakha* is used for *hentak* preparation. This fish are sun dried after thorough washing till the moisture content in the fish is the lowest. It is then crushed into powder form. Wild *colocasia* stem is crushed after washing and cutting into pieces. The powdered fish and the crushed wild *colocasia* stem are mixed properly and are rolled in round form and stored in a container, then after 3 days it is again crushed with the help of a pestle and mortar. This crushing is done at a regular interval if to be stored for a longer period of time. Instead of *colocasia* stem, onion can also be used but *hentak* made out of it can not be stored for long.

##### **Khazing**

It is the small sized prawn which is available in the *Loktak lake* of Manipur. *Khazing* is available in the market as dried form or is consumed in fresh form. When it is thoroughly dried, it is used in making curries. Dried *Khazing* has a very long shelf life. In other way, the freshly catch *Khazing* is fried along with mint leaves (*Mentha arvensis*).

##### **Heikak**

*Heikak* is a hydrophilic plant and the fruit is black in colour and irregular in shape is consumed by

almost all the people of Manipur. It is consumed by either boiling it in water or by converting it into flour and used for preparing *chapatti*.

### Sticky rice chapatti/bread

This kind of *chapatti* or bread is prepared during the festivals like *Gan-ngai* or *Lui-ngai ni* or Christmas by the youths. The required amount of sticky rice is soaked for 3-4 hrs in plain water then sun drying is carried out on a bamboo tray known as *yankok* locally. When it is dried completely with the least moisture in it, grinding is done in a mortar till it becomes powder. The coarser part is removed with the help of a sieve and ground again. In another container sugar solution is prepared, the amount of sugar depends upon the desired taste of the person. Now, the rice flour is mixed with the sugar syrup and *chapatti* is prepared. Bread can be prepared in two different methods, i.e.

- 1 **Boiled method:** In this method, the mixture of rice flour with the sugar syrup is made very hard and round in shape which is then wrapped with cardamom leaves and tied properly. In another container water is boiled and the above content is poured and cooking is carried out for an hour. This kind of bread can be kept for one week but gets hard if kept for long so, the cardamom leaves are removed and the content is fried in oil.
- 2 **Fried method:** The mixture of rice flour with the sugar syrup is made softer by adding more water and made to round shape. A small amount of edible oil is also added in it. Then in the fire place some charcoal is removed just near by and the content is put on top of it. When this becomes black in colour, it is turned upside down so that the other part also becomes black. The upper black portion is scraped out and the remaining is used for consumption. This method is the oldest form of making bread by the hill people of Manipur.

The *Tangkhol* people of Manipur prepare another special kind of *chapatti* from sesame. In this method, the mixture of rice flour with water is made very hard and even coarser part of the rice flour can also be used. No additional items are added with it, not even salt. Then similar to the fry method, some charcoal is removed just near by and the content is put on top of it near the fire. In a mortar, raw sesame is ground where a small amount of water is sprinkled in it and salt is added to taste. When oil started coming out

from the sesame the above content is added and ground along with it. But if excess amount of oil comes out then it is removed manually. The mixture can be used in preparation of *chapatti*.

### Bamboo based products

In Manipur bamboo forest covers an area of around 3218 sq Km. The most commonly available bamboo species are *Bambusa aurndinaca* (*saneibi*), *Bambusa pallida* (*Kal-sundi*), *Bambusa nana* (*Khok*), *Dendrocalamus giganteus* (*meiribob*), *Dendrocalamus flagellifer* (*Longa wa*), *Dendrocalamus hamiltonii* (*Wanap/unap/pecha*), *Dendrocalamus sericeus* (*Ooii*) and *Melocana bambusoides* (*Moubi/muli*), *Teinostachyum dulooa* (*Dulu*), *Teinostachyum wightii* (*Nath*), *Bambusa tulda* (*Utang*). About 20-30 MT bamboo shoots are consumed annually for the production of canned bamboo-shoots. Canning is done either in brine or in syrup. Export of these canned bamboo shoots are done in Japan, Singapore, China, Thailand, Hong kong and UK The chemical constitution of a raw bamboo shoot in percentage are; moisture, 88.8; protein, 3.90; fat, 0.5; minerals, 1.10; carbohydrate, 5.70 and calorific value, 43 Kcal. Some important products made from bamboo are:

**Soibum.** Tender bamboo shoots are collected and cleaned, outer sheaths should be removed. Only inner white portion is used for fermentation. There are many ways for the preparation of fermented bamboo shoot, i.e.

- 1 **Inside a pit:** In this method, a pit is dug and a basket made by using bamboo of the shape of the pit is placed into it. Care should be taken to slightly inclined the bamboo basket while placing so as to allow the flow of the water produced by the bamboo shoots during fermentation. Wild *colocasia* leaves is put in and around the pit in a thick layer of about 2-3 inch, then the bamboo shoots are made into longitudinal shreds and kept in air tight condition. The fermented bamboo shoot is ready for sale or for making curry within 3 to 5 days. These fermented bamboo shoots are locally known as *soibum* (Fig. 1). The water collected from this can also be preserved and is used again in new fermentation of bamboo shoots. Now a day, instead of wild *colocasia* leaves, plastic sheets are used, provided holes are made in the bottom to allow drainage of water. This kind of fermented bamboo shoots can be kept for a longer period of time i.e. for one month or more

if kept air tight. The degree of sourness shows a rapid increase in the initial stage of fermentation but as it reaches a peak point at about 7-10 days, it started decreasing. These methods of preparing fermented bamboo shoots are followed in almost all the hill districts of Manipur. Bamboo varieties such as *Sanaibi*, *Nath*, *Unal*, *Longa wa*, *Meiribob*, *Ooi*, etc are used for this purpose. Care should be taken to avoid varieties such as *Utang* and *Knok* as they are not edible<sup>12</sup>. *Sanaibi* is the best bamboo shoot variety for preparation of fermented bamboo shoots, which is followed by *nath* variety. But *Unal* variety gives better texture and appearance.

- 2 ***In an earthen pot*** : This method of the fermentation of bamboo shoot is the same as said above, the only difference is that instead of fermenting the bamboo shoots inside a pit, an earthen pot is used where a hole is made at the bottom for the drainage of excess water during fermentation. During fermentation in an earthen pot some people prefer to add *Heibung* for enhancing the fermentation and also for a sourer taste.
- 3 ***In open condition***: In open condition, wild *colocasia* leaves are used in thick layers. The sliced bamboo shoots are placed on top of it and are again covered with these leaves. Fermentation is allowed to take place in this way. No other addition is done in this method.
- 4 ***Dipping in water***: For this method a special bamboo variety is used i.e. *nath* variety. Locally it is called *nath ki soibum*. This method is commonly used by the people of Bishempur district of Manipur. As the *nath* bamboo is very small and long, it is sliced longitudinally as whole for about 2-3 cm and it is placed in a container (plastic buckets are generally employed these days) where water is poured just to dipped the contains. It is covered and kept till sale. The fermented bamboo shoots are ready to sale after 3 days. *Nath* variety gives very tasty fermented bamboo shoots but it can't be stored for a longer duration of time.
- 5 ***Dried Usoi (bamboo shoot)***: For this purpose any bamboo shoot variety which is edible is used. All the bamboo shoots are sliced to small pieces and is boiled with water then drying in a bamboo tray under the sun is carried out after draining off the excess water. This dried bamboo shoots are

packed in plastic sheets and used in off season or is send for sale<sup>4</sup>.

- 6 ***Dried soibum (fermented bamboo shoots)***: In this method, after the completion of normal fermentation of the bamboo shoots, they are dried either under the sun or in top of the fire. For this method the Tankhul people of Manipur uses a special type of bamboo shoots variety which is very small and long, locally known as *ngathan*. It gives a twisted appearance after drying just like noodles.
- 7 ***Fermented bamboo shoot Pickle***: The *soibum* in general (fermented or dried) are consumed by all the people of Manipur devoid of any caste or tribe. It is eaten as raw with fermented fish or boiled and cooked form with any meat or fish or vegetables. It forms an important food part in all the festivals observed by the *Manipuries*. Nowadays, in some small scale industries the bamboo shoots are blanched after slicing into small pieces in hot water to reduce its enzyme activity and are treated with KMS (1%) for 10 min. After which it is sun dried and packed in an air tight container and is send for sale.

### Alcoholic beverages

The commonly consumed alcoholic beverage in Manipur is prepared from rice. It is commonly known as *Yu*. In this case, any kind of rice is used for the preparation of alcoholic beverage but the *Tankhul* tribe used only sticky rice. In some of the alcoholic beverages yeast is required for conducting the fermentation. This is prepared as described below.

### Preparation of yeast (*Hamei*)

The quality of rice beer is partially depending upon the quality of yeast used. It is otherwise called as *Hamei* by *Kabui* tribes and *Chamri* by the *Tankhul* tribes. For preparation of *Hamei*, finely grinded rice powder, where the rice was previously soaked in water for 2-3 hrs is thoroughly mixed with the bark powders of *Yanglei* (Fig. 2).

The mixture is kept in large vessel and water is added slowly till the mixture made into paste with the required consistency. The paste is then spread on the bamboo mat/banana leaves and made into small cubes or tablet form. The prepared tablets are sun dried till the material is completely dried. *Hamei* can be stored in cool, dry place for over a year. For 1 kg rice, around 8-10 gm *Yanglei* is added. Three different kinds of alcoholic beverages are consumed. They are:



Figs.1—3: (1)Street vendor selling *Soibum* in local market, (2) Yeast tablets and (3) Traditional preparation of *Yu*

- a) ***Yu angouba***: For the preparation of *yu angouba* the rice is soaked in water for around 2-3 hrs along with some germinated paddy. For 1 Kg rice around 100gm germinated paddy is added. After this, the water is drained out and the soaked rice is crushed with the help of a mortar till powder form. In another vessel water is boiled and in this boiled water the crushed rice is added with continuous stirring till it gets cooled then it is covered by a muslin cloth and kept for 2-3 days without any disturbance. Within these days form started coming out and a typical flavour and odour is released. This indicates that *yu angouba* is now ready to consume. The *Tankhul* tribe of Manipur uses a typical pot which is of the shape of a conical flask, so after pouring the content it is sealed with cow dung and ashes mixture. This tribe uses only paddy and not rice for the preparation of *yu angouba*, and it is known as *Khor* in their local dialect<sup>12</sup>. *Yu angouba* can't be stored for a longer period of time. It can be stored for a maximum of 7 days. This kind of alcoholic beverage if consumed within 2-3 days then is said to be beneficial for our body, it is compared to drinking of milk but in a limited quantity i.e. 500 ml at the maximum.
- b) ***Atingba***: In this type of alcoholic beverage rice is cooked and spread in a container or in a tray made of bamboo. *Hamei* is mixed properly along with the cooked rice. The whole content is transferred in a vessel then a little amount of water is poured just to dip it. Then cover with a muslin cloth. Heat is released for 2-3 days<sup>13</sup>. After which water is again poured to ease the heat. *Atingba* is ready to drink after 6-8 hrs of pouring the water but this will give a very light drink. A proper *Atingba* is formed after 4-5 days of fermentation during summer and after 7-8 days in winter. This kind of alcoholic beverage can be consumed for only 1-2 days after fermentation but can be kept for around 1-2 months which is used for preparing *Yu*. The *tankhul* tribe calls this type of wine as *Patso*.
- c) ***Yu***: *Yu* in kabui or *Acham* in tankhul is prepared from *Atingba*. This *Atingba* is poured in an aluminum pot and is cooked in low flame. Above to this pot an aluminum funnel is placed and from this a pipe is connected to the otter part of the pot. This pipe is used for collecting *yu*. The pot is covered tightly with an aluminum plate. On top of this another aluminum pot is placed containing cold water. All the connecting points are sealed properly with cow dung paste. Distillation continuous until all the alcohol present in the content is out. This can be checked by dipping a small stick into the boiling *Atingba* and lit it, if produce green flame than it indicates that the alcohol content is more<sup>14,15</sup>. So, based on this technique the distillation process is continued. The remaining content after the extraction of *yu* is used as pig feed. This type of alcoholic beverage is very hard as compared to the others stated above (Fig. 3).

Another kind of alcoholic beverage prepared from banana is commonly consumed by the *naga* tribes of Manipur known as Banana wine; this is prepared by fermenting the ripe banana in a closed container with a little amount of water<sup>16</sup>. No inoculum is added for conducting the fermentation. The wine is ready to drink after 3 days and is advisable to consume it within 1 or 2 days after opening the cover.

### Conclusion

The society, culture, traditions, ethics and food habit of any community cannot be seen in the isolated mode as they are all intermingled and much more complex. The ecology provides a range of probability to select the plant and animal sources, culture decides the tradition and the ethics determines the habit of eating the food. The traditions maintained by various communities of *Manipurians* are having strong ethical issues. The advent of modern civilization has adversely affected the tradition and heritage of community and thus the younger generations are not exposed to traditional practices. There should be focused efforts to promote traditional food systems within rural communities. Rewarding and acknowledging young people who demonstrate interest and awareness in the health of environment and in their traditional foods would also raise the profile of these issues. Traditional foods, community dinners can also provide opportunities to promote food products and knowledge about ethnic foods. In future, the nutritional and microbial aspects of various traditional foods are needed to be analyzed.

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