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FOOD PROCESSING BY RAJBANSHI INDIGENOUS PEOPLE OF NORTH BENGAL, INDIA

Ashok Das Gupta University of North Bengal nbu_ashokanthro@rediffmail.com

Short Abstract

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Author: Ashok Das Gupta (University of North Bengal)

Mail All Authors: nbu_ashokanthro@rediffmail.com

Short Abstract

This paper is going to focus on Food Processing by Rajbanshi Indigenous People of North Bengal, India.

Long Abstract

Rajbanshi social fold comprising of both caste and communities constitute 18% of total population of North Bengal, India. They are in favour of irrigation (small and broad scale), sacred grove, fencing and lattice, highland and marshland, river basins and valleys, kitchen

garden, etc. They are too good with the complex production systems of crops, cereals, vegetables, rapeseeds, honey, bamboo, liquor and sugar yielding varieties, medicinal herbs, fruits, mushrooms, lichen, livestock, fish, crab, small fish, mud fish, prawn as well as fiber, silk, silk cotton, drinks, areca, betel and tobacco. They are fond of meat, milk, egg and fish. These flora and fauna are again source of fuel, fodder, natural dye, and pesticides.

Rajbanshis is traditional life used to go through barter and reciprocity. Women are involved in preserving fish, paddy, fruit and milk items. In fish and paddy preservation, they use arum. Fruits are preserved in dried or as pickles. They do not waste their organic waste and use them as manure associated with ash, light trap, food-web and natural insecticides. They have developed crop rotation, legume plants and mixed cultivation. They still remember shifting cultivation and bush-fallow cultivation. Further, they have produced complex production systems involving varieties of flora and fauna (such as mango-pineapple, areca-betel nut, rice-fish, and duck-snail-fish).

Alternative food sources that Rajbanshis do not put in priority are toad/frog, eel, snails and boar. They do not eat cow for religious reasons. But in traditional life, they once consumed deer, bison, buffalo, rabbit, wild birds, turtle and lamb.

Rajbanshis

Rajbanshi people are living in agrarian pockets of North Bengal (northern part of West Bengal state, India) and they might have possessed traditional knowledge regarding agriculture and other related issues. Following Barma (2007), Hindu Rajbanshis are

129,904 in Darjeeling (also Darjiling) of total individuals 1,609,172; in Siliguri subdivision (also Shilliguri) of Darjeeling district 119,120 out of 818,581; in Jalpaiguri 811,567 out of 3,401,173; in Koch Bihar (also Cooch Behar) 972,803 out of 2,479,155; in Malda (also Maldah) 144,158 out of 3,290,468; in North Dinajpur (also Uttar Dinajpur) 405,140 out of 2,441,794 and in South Dinajpur (also Dakshin Dinajpur) 224,988 out of 1,503,178 and there of total 14,724,940 of North Bengal, Rajbanshis have a population of 2,688,560 (18.26 %). They might have good knowledge over traditional agriculture and agro-based biodiversity management of North Bengal. According to Sen and Ghosh (2008), Rajbanshis are now placed in the Schedule Caste category in West Bengal. Currently the Schedule Caste population constitutes 23 per cent of the total population of West Bengal and there are 59 notified Schedule Caste populations in the state. The Rajbanshis constitute the largest percentage and number of the Schedule Caste population in West Bengal (18.40% and nearly 3.4 lakhs, respectively). It is conjectured that the Rajbanshis have a mixture of Austroasian/Dravidian and Mongolian elements. In that context their indigenous knowledge is going to be studied here.

These people have affinity with forest based tribal groups like Mech, Rabha and Bodo in Sub-Himalayan Bengal as well as indigenous statehoods laid out by Khen and the Koch. They are associated with Bengali and Assamese speaking peoples as well as local Nepali, Adivasi, Bihari and different Hindi speaking groups. They are aware of once tans-national trade routes and various Diasporas.

And at the same time, many of their indigenous knowledge (result of informal experimentations, trial-and-error method, generation-wise intellectual reasoning, local, scattered, oral, and traditional) could survive because of being culturally embedded. They can utilize them in a systematic way for earning money through micro-financing.

Rajbanshis in highland areas proceed towards tea, pineapple, potato, spice (chilly), horticulture (gerbera) and sorry to say, a few to illegal drug cultivation (poppy and hemp propagation); besides fruits and vegetables. They in lowland propagate crops like paddy, jute, flex, arum and in slopes cane, bamboo, banana, corn, and millet. They many of theses items preserve along with medicinal plants. Preservation of food is a sector where Rajbanshi women actively participate. They are also associated with ornamental fish production, mushroom cultivation, handlooms, floriculture and kitchen garden including many medicinal species.

However, traditional agricultural knowledge system delivers information about reservation of fruits and vegetables (Lal, Siddappa, and Tandon, 1986). It behaves like a good source of various fermentation processes (Battcock and Azam-Ali, 1998). It is related to application of indigenous fermented foods (Steinkraus, 1996). It deals with manufacture and use of pickles, dry foods, liquor, spices, sun-dried elements, soil preserved food, concept of fresh food and various types of food taste (Fellows, 1997). It is again involved

in formulation of proper relationship between traditional knowledge and biodiversity conservation. Actually, farmers remain no longer passive consumers, but active problem solvers (Warren, 1991). So, the highest priority is going to be given upon alternative role of indigenous knowledge system against the high-cost modern crop production system (Davis and Ebbe, 1993). It could let a low-level external input among the resource-poor agriculturists living in nature-surrounded remote areas (Haverkort, Reijntjes and Waters-Bayer 1992). It is exclusively related to the traditional non-subsistence symbols and technologies developed without direct inputs from the formal sector (Chambers et al 1989, and Gilbert et al 1980). It involves local-level innovation and their transmission to a wider periphery (Warren in 1991).

At early days, Rajbanshis did not cultivate paddy varieties throughout the whole year, but only in a specific season; so cultivation is seasonal and not yearly. They preferred cultivation in the monsoon season. Rajbanshis of upper portion of North Bengal plains (condescended with forestry) left the cultivation ground for a season or a year or several years that they considered good for maintenance and increase of the productivity. They did not cultivate at single fixed place overtime; time to time they changed the place of crop-cultivation. They called it *jhum* cultivation where the bush and trees of the selected area were cut off to let them rotten or burn with fire and then they planted there the crops. In that way, the slash-and-burn type of cultivation in late winter when soil was covered with deciduous leaves of shorea and teak freed the ground full of ash and under clear sky with pleasant sunshine of spring from harmful insects. Light raining of late winter and

temperature fall in night made the ash fertile and seeds were spread unevenly in summer or at the time monsoon launched the Himalayan terrains and Sub-Himalayan valleys. This system did not fit in those regions of the lower plains where both the population size and the expectation from the cultivation were larger and higher. In the present day, *jhum* cultivation has become quite invalid, but still ash is used as both forms of manure and pesticide. Rajbanshis have improved *jhum* cultivation with introduction of wooden plough and applied the technique of sowing the saplings rather than the seeds with help of a digging stick. Later, Rajbanshis have started preferring crop cultivation basically in the flood prone areas. They have generally classified the soil type into three: *danga* (highland), *nichu* (lowland) and *jola* (marshy land). There is complete absence of farm houses and no option of equity investment in the agriculture sector by big capitalists. Land distribution has so far progressed here and small to middle scale peasants have become the land owners and the rest in the quasi-unorganized sector of landless labors, share croppers and other agriculture oriented jobs, old to new. The earthen boundaries of these landscapes are called the *aal* and used by the cultivators to go into the field. *Danga* is preferred for vegetable cultivation, production of wheat and *marua*, habitation and kitchen garden, bamboo propagation, sacred groove and grazing. The *nichu* land is considered appropriate for rice cultivation. In winter, the Rajbanshis at the *nichu* land cultivate several types of vegetable along with *makoi* (corn) on the sloppy landscape; whereas propagate wheat on the *danga* region. The lowland areas are used for production of pulses and mustered (along with other rape-seeds like *rai* and *tisi*). Pulses are of different varieties: *maskalai, thakurkalai*, pea, gram, moog and *khesari*. *Jola* region is

good for jute, water hyacinth and arum, while the slopes for the ferns. Sandy river bed in foothill areas is good for spices, watermelon, poppy, cardamom, ginger, garlic, and *tejpata* as well.

Table 1: Categorization of Agricultural and related production systems by the Rajbanshis of North Bengal

1	Protection of healthy variety of crops growing in nature, domestication of wild varieties, natural variety of high yielding crops, indigenous way of producing hybrids with high nutrition level, retention of soil fertility and soil classification, concept of upland, lowland and marshy land;
2	application of degradable ethno-toxicants, cutting, pruning, tissue culture and cloning, seed storage, seed treatment in the nursery to provide healthy seedlings and saplings;
3	land preparation, seed collection, seed treatment, nursery, leveling and tillage, slash and burn, fallow practices, mono-cropping, poly-cropping, alley cropping, mixed cropping, inter-cropping, side cropping, fencing, crop rotation, kitchen garden and horticulture, traditional classification of soil and land, irrigation, manure preparation, pre-sowing practices like weeding and manuring, pest controlling measurement, transplantation of seedling and sapling, sowing, cutting and pruning, disease control, weather indication, observation, post-sowing weeding and manuring, irrigation and drenching, removal of excess water, complex cultivation systems and biodiversity management, inclusion of friendly biome within the agro-based ecosystem, harvesting, technologies to have more

	yield and multiple harvesting, thrashing and extracting, winnowing, stock raining and food preservation, traditional tools and techniques, division of labour and so forth; application of organic manure, application of eco-friendly microbes and vectors, natural way of paste and herb control: use of larvae, insects, birds, fish, ants, white ants and earth warm;
4	classification of soil types, classification of cultivation ground, symbiosis and nitrification, fishing-cum-paddy cultivation, techniques involved in shifting cultivation and step cultivation, fallow cultivation, seasonal cultivation, yearly cultivation, annual and biennial cultivation, flowering in the first year of a biennial crop;
5	identification of certain species on trees or in soil causing severe harm to the crop production, weeds used in removal of pests and other harmful organisms, earth-warm in maintenance of soil fertility (vermicompost);
6	roles of women, seed and sapling selection, crop selection, seed germination, crop sowing, protection of ripen crops from rat, insect, bird and bat;
7	crop harvesting, crop thrashing, grain storing, preservation of the crop, fish, food, fruit, fruit pulp and so on, pressed and puffer rice, alcoholism, fermentation of rice or fruit juice, palm juice, debt juice and production of unsaturated sweet cakes, types of pickle, prickles in mustard oil or as stored in dried condition, use of dry *neem* leaves as preservatives, use of sun beam in preservation, use of dry soil as preservative, use of the straw stalks for fertilizing the soil, use of straws in mushroom cultivation, burning of straws in the post-

	harvest period on the cultivation ground, light trap, weed management, use of dry soil (of rat house) as preservative;
8	mushroom cultivation, mushroom varieties;
9	use of algae and lichen in cookery, classification of bamboo;
10	use of bamboo in every aspect of life from drinking water in a glass made of bamboo to house construction, techniques involved in bamboo cultivation, bamboo parts as food, fodder and pickle, bamboo and myth, flowering in bamboo and natural indications;
11	use of lichens, mushrooms and fern in cookery, dye production, wax formation and medicinal purposes;
12	floriculture, use of pots, environmental influence, low-cost greenhouse manufacture, nursery and water shade, use of organic manure, cutting and pruning in horticulture, garden eco-system, shade trees, fish manure and bone dust, soil types and stones, soil sterilization, fencing, use of roots, rhizomes, shoot, bark, lattice, leaf, bud, inflorescence, flower, anther, nectar, fruit, seeds in various purposes, pitcher plants, extraction of essence from the flower, lemon grass production;
13	honey collection, protection of the nectar yielding flowering trees favored by the honey bees, role of honey bees in ecosystem and maintenance of food web, use of honey in food as medicine and for health protection, use of wax, use of birds in searching out the honey nest;

14	animal husbandry and poultry, construction of the shade, supply of fodder, breeding, grazing, milk products and card, indigenous techniques for increasing milk production, protection of the cattle from leaches, protection of poultry from bird eating animals, veterinary and control of disease in the domestic plant species, animals and birds, use of animal produce, skins, wool, bones; supply of food (meat, egg, milk), source of manure, fuel collection;
15	spice cultivation;
16	vegetable cultivation;
17	ethno-fishery, pond selection, protection of pond ecosystem, liming the soil for controlling the water pH level, careful observation of fishes in the cold foggy winter, especially regulating the water temperature in the pond, proper physical activity and regular feeding, disease treatment, fertility control, various techniques of fishing, fishing in the streams, fishing in the rivers, fishing under the waterfalls, fishing in the marshy land, fishing in the paddy field, fishes as good source of manure, fishing of fishes with extra-respiratory organ, group fishing, quick fishing in emergency, use of ethno-toxic elements in fishing, preserved fish products, fishes in maintenance of the health condition and nutrition level, superfluity and fish feed, cultivation of prawns, crabs, colored fishes, insect and mosquito eating fishes as well as hybrids, use of fishes in controlling mosquito larvae; control over snake, rat and frog; concept about water pollution and the role of pond water as the carrier of diseases in fishes, cattle and human and related disease cycle;

18	sericulture, selection of trees for sericulture, cocoons and production and storage of silk fibers;
19	lime production, relation between lime production and snail consumption system; frog eating and related belief;
20	pulse cultivation, production of sun-dried preserved pulse cakes;
21	medicinal weeds;
22	alternative crop production like floriculture, bamboo and cane production, *shola* production, silk production, rubber production, lac production, wood production, fiber production, lemon grass production, fodder production, coloured fish production, mushroom production, and so forth. Pineapple, maize, baby-corn, fragrant rice, tobacco, new type of vegetables and fruit varieties can be mentioned here.

Rajbanshi kitchen garden and alternative way of pest control

Rajbanshis believe that prune plants give good production, but have lower longevity than the plants from fertilized seeds. They store the seeds or bulbs of good varieties in dried condition for the next year growth. When available, they try to generate a new plant from a cut stem or rhizome or leaf or root or the bulb. In nursery, they generate seeds and develop saplings in refined, shrub free, dried, stone free, nourished and fine soil beneath a thatched shade or plastic. The saplings are separated from each other and each of them is placed at somewhat piled soil so that the side channels could drain off the excess water effectively.

In vegetable cultivation, Rajbanshis often apply an inverted funnel-like structure made of the sticks for each creeper in the kitchen garden. They also use a common lattice. In pots, they sometimes grow more than one plant, maintain a balance between them and use wooden or bamboo stick to make them erect. In the garden, an ecosystem of its own is also developed there and its proper maintenance could help in controlling the pastes and weeds there. Parallel to application of ash and other bio-toxicants as a protective measure from disease as well as cow dung, bone dust, rotten leaf, compost, mustard and *neem* cakes, and water emulsion of ash as the manure; the food web in the garden has itself a potentiality in disease prevention.

The heat generating from ash pile or the rotten vegetables, leaves and weed is actually helpful in incubation of grass snakes. Grass snakes are often found to warm up their body in the sun beams of summer near such culverts of the dry canals or boulder piles providing a quick passage into the darkness of hidden place rock shelter. These snakes do not harm man and help in controlling the population of frogs and rats in the garden. Rat is also good meal for cats. Birds like crow are also fond of frog and rat. Again the frogs are helpful in controlling the over increase of insects. The same work is done also by domesticated varieties of hen. Many other birds are involved in the same work; they hop upon the carpet of shed leaves; in this way, they search the hidden insects beneath these dry leaves and eat up them. Birds are there to clean up the superfluity and other dirt. In the monsoons, the situation has been little bit altered. The birds have built their nests with the materials like leaf fibers, dry branches and leaf. Some birds weave the leaves to form their nests. Some

prepare their nests inside the corner of the house. Some do it in the coconut tree with the help of paddy straw or hey and the nest looks like an inverted lamp. Birds often catch the male firefly and fix them in a small piece of cow dung in their nest that provides light in the night. Sound of cricket is a common thing in the villages of North Bengal. It increases with quietness of the dark night. The stagnant water of rains is good for rapid growth of mosquito larvae, tadpole, larvae eating small fishes and diving beetles that prefer to eat the tadpoles. These small fishes are again consumed by fish eater small birds. However, the food chain in this ecosystem inside water is chiefly originated from rotten leaves acting as a good source of tadpole and larvae food. In mud; crab, prawn and fishes with extra-respiratory organs are also found in large number. Snakes are also found in the tiny water streams. The snake number is again controlled by the domestic mongoose. Lizard, leech, green leech, fly, ant, spider, ant-like eight feet spider, big spiders without any net formation, large garden snails, apple snails, earth warm and centipede are other components of the garden. Ants are also of several types: very small red ants, small red ants, small tiny red ants, small black ants, small tiny black ants, big black ants, very big black ants and wood dwelling black-red ants (*kath pipra*). Size and shape of the colony, aggressiveness and action of the folic acid are different in case of these ants. Black ants often cut off green leaf and take the pieces to their holes where they use them in construction of chambers and propagate fungus. These fungus they feed some another minute delicate white insects (whom they bind up with mild fibers coming out of their mouth). From these white insects, they receive some milk like substance. Ants also act like scavengers. Small bird, honey bee, wasp and hornet are there to suck up the nectar. Wasp

lays its egg inside the body of caterpillar and the wasp larvae take the nourishment from the body fluid of the latter. Butterfly larvae, living on green leaves, are also eaten up the bees as good source of protein and therefore a regulation on the huge quantity of the green leaves eaten up by these caterpillars has been restrained. Bees are again eaten up by the bee-eater birds and some spiders. Ants often eat up these larvae and insect eggs; but generally fail in battle with ant like spider. Spiders also hunt the caterpillars and the bees. Black small ants are fond of sweet taste and often found in the dry calyx region of guava fruit. They produce a specific smell on the guava fruit. Birds like parrot often eat up the guava and other fruits. Sometimes, monkeys come down from the hills for the sake of food and fruit; they are highly attracted by the sweet smell of the *beal* fruit, but do not acquire the knowledge of how to break up the hard fruit coat and eat the inner portion; they detach these fruits and fall them to the ground. Snails are good reason for destruction of leaves and plants in the garden. These snails are often eaten up by birds that bring them up in the sky and from there, fall down them lower on hard ground so as to break the shell up. At night, when the snails come out of their shells; cats, night birds and porcupine eat their juicy soft muscular body parts. Green snakes are also found occasionally and they are very poisonous. Flower beds are also favorite target of the weed plants with deep and interconnected roots ranging from various types of grasses to Compositeae plants; the seeds are found to be gliding in the air through parachute mechanism and spread to a larger area. But of them bind weeds are the most aggressive and basically grow near the marsh land, canals and in the jungles seen from the road side, attractive for their beautiful colorful flowers. Root Maggots, Wire-worms, Cutworms and others are some harmful pastes in the

ground; but they could be controlled by the ants, white ants, earth warm and other ground dwellers; they make the soil soft and sun soak. Garden is always filled up with shade shifting its place with time, sweet smell of flower in breezing wind, colored flowers and decorative ornamental leaves as well as charming songs of chanting birds. Sound of crow and hen after the long dark night announces rising up of the sun. Big snail shells are found on the ground empty as their soft body part protrudes the dew-wet soft soil. Sweet smell of the night blooming white flowers immobilizes the clear air. And then the daily activity of human and the diurnal biotic elements of the garden ecosystem begin their daily work. Drip irrigation is very useful in summer to prevent the pot plants for dying from dryness. From the hole at the bottom of a hanged earthen round bottom pot, drops of filtered water are poured on the leaves, stem and soil; for filtration, a piece of cloth is generally used.

Preserving food and preservation techniques used by the Rajbanshis

Fish preservation: Washing, cutting, and sun-drying are performed one by one; dry fishes are then dusted and mixed up with paste of arum leaf base and finally, round hand-made fish balls are prepared. In dried fish production, with the cleaned fishes, Rajbanshis do not mix up salt before keeping them under the sunbeam on dry soil. They even do not treat these fishes with turmeric or warm them on any tawa (plate) on stove. In other places, salt and turmeric are used. There the proportion of salt and turmeric depends upon the nature of the fish variety. In some cases, fishes are often stored under the dried soil. But here, fishes (washed and cut) are often but simply sun dried and then dusted to form fish balls with the

help of sticky extract from black arum leaf base; these balls are generally prepared in monsoons or post-monsoon period; these balls are cooked as curry or consumed in fried condition. Fish balls are generally termed as *sidal*.

Pickle production: Green mango, carambola, tamarind, pine apple and plum could be stored as pickle. Sweet fruits (even banana) could be fermented and stored as *tari*, juice of palm and date or rice alcohol for long. Alcohol is produced from rice, malt, and millet. These stuffs have to be fermented at cold place in earthen or wooden pots or bucket with water. Foam comes out and alcohol is produced.

Preparation of *Gur* [the unsaturated sweet solid fragrant crystal of date-palm juice]: Experienced peoples are engaged in collection of the juice under some supervision. Or they on their own responsibility could collect the sweet juice coming out of the cut channels in the trunk portion into the earthen pot bound tightly with rope at the cut portion. This collection is specifically done in winter season. In very early morning the pots filled up with fresh date juice. After this collection process; the juice is heated in a pottery on earthen stove; with the help of dried date leaves, this mixture is continuously serrated in mild flame for long time under thorough observation; and ultimately, the mixture is poured on a clothed pot to let it be cool down and form a sweet hard cake. The juice gradually starts loosing its moisture, becomes crystallized and saturated with a specific taste. Lack of experience regarding preparation of this *gur* can bring bitterness in it. It is a day long process under the bright sun in the clear sky and only at the late afternoon, the cluster is poured off and throughout the night kept for cooling. Here, the dried debt leaves are often used as the fuel. Actually the Rajbanshis do not prepare sweet milk items themselves, but

depend on the Bengali sweet makers. *Gur* for them is right alternative of milk made sweets. This is also used to give sweetness in milk products.

Tari preparation: *Tari* is produced from freshly taken juice of palm in the same process as the date-palm juice is collected. The fresh juice is kept freely to be fermented and the alcoholic substance of *Tari* is thus produced. Palm fruits are available in the season of spring. Fruit is crush to get in the fibrous pulp of it which is then extracted by hand into juice. This yellow juice with milk and even coconut or coconut milk is consumer as mixture. Sometimes, this juice mixture is heated to make it a condensed texture. That is called as *taal kheer*. This emulsion is often fried in cooking oil and these small pancakes or boras are kept air tight in jar.

Vapa Pitha preparation [rice cake]: Some Rajbanshi women make a delicious dish with rice dust. This is called as the *Vapa Pitha* which is nothing but one type of soft fluffy rice cake. On a dice with a single hole placed at the mouth of a *Handi* (earthen pot) on fire (earthen stove) with boiling water inside, they put the rice dust (prepared in husking machine) packed in a piece for two to three minutes. In this way, the dust is baked on steam and turns into the pancake. This is then served with a small crystal of *gur*. The *Vapa* used to be prepared at night time or early morning and the women preparing it would go out to barter their produce in exchange of some rice. They use this rice to produce *Vapa* again for the next day from the collected rice and the extra rice left aside would feed her family. One kind of distribution, barter and cash transaction has been developed. Regular supply of food to the less prosperous or non-agriculturist families is there beyond the periphery of modern cash system and monetary economy. Now, this

seasonal food item for late spring and winter is largely produced in post-harvest leisure time from husked rice. Thrashing, winnowing, stock raising, husking and rice cake preparation are general works of the womenfolk. Rice cakes are now sold in market through monetary transaction.

Rice grain preparation: Rajbanshis either keep the coated rice in water for the whole night or heat in regulated flame to some extent; both types are then husked to get decoated rice grains. The rice produced by water treatment of the paddy grains is little bit thinner and softer. It is called atop variety. This thin rice is easy to cook, used in festivals and its dust emulsion is taken for painting the floor with designs. Rice is again soaked with water and stored in big bamboo thatched baskets. Such baskets are plastered with dung that in dry condition serve as hard coat. Cow dung in water emulsion with rice seed coats is a natural plaster that is used on earthen walls and floors and inner and outer courtyard. Neem leaves in dry condition are put into these buckets full of rice or paddy to set free from harmful insects. *Neem* or *Azadirechta* is good pesticide.

Telani preparation [water left after collecting the boiled rice]: It is used in wash treatment of old clothes. Rajbanshis also consume the *telani* with adding some salt in it to taste; they consider *telani* as the most important type of nutritious food good for health.

Chalvaja preparation [one type of fried uncooked non-boiled rice]: Rajbanshis take fried uncooked (non-boiled) rice with tea in the early morning in their breakfast before getting involved in their daily work.

Panta bhat preparation [salted rice]: The cooked rice or Kaon millet is kept in water throughout the night and only when the sun appears to arise the Rajbanshis do their breakfast with this watery rice after putting a pinch of salt in it (called as *panta bhat*).

Rajbanshis prefer rice cultivation the most. The rice varieties they have preferred the most are *Kukra* or *Kukurjali*, White or *Sada Nunia*, Black or *Kalo Nunia, Tulaipanji,Swarna, Kalam, Payejam, Mala, Dharial* and so on. Black *Nunia* paddy is black in texture and because of that when the crops are full grown, the field is looking black and the air is filled up with a special fragrance. Grains of Black *Nunia* are relatively small, but very much tasty; it is sold in market in higher price level than the hybrid varieties and it has a low yield. White *Nunia* is also there, their seed coat color is as usual non-black and hence golden. Rajbanshis are concerned about high nutritious value of Nunia rice. A small quantity of *Nunia* rice can fill up the belly for the whole day. A handful of *Nunia* paddy after decoating the paddy seed-coats could provide ample amount of cooked rice. *Swarna* gives a greater yield, while the lowest is documented in case of *Kalam*. But *Kalam* is the rice with elongated grains of thin size and also good in taste. *Kaon* or *Kamon* is a variety of millet with smallest grain size. Being extremely minute, *Kaon* looks like mustard, but it is not any kind of rapeseed. It is not too tasty as paddy. Mala ripens most quickly. *Kaon* grows up reluctantly in the natural environment of North Bengal. Usually the Rajbanshis eat boiled *Kamon* or *Kaon*. It is consumed in hotchpotch (*khichuri*). It is also cultivated in the hill areas or at foothill pockets by other ethnic groups. *Kaon* and rice varieties are stored in dry condition, sold in market and consumed by the people.

An important variety of paddy, *Dharial*, contains grains with pressed shape and therefore used exclusively in production of the preserved rice products (*muri*- puffed rice; *chira*- bitten rice; *khoi*- pressed rice).

- Preparation of *chira* or *chura* (bitten rice): Coated rice is here put in water for the whole night or for some days so that the seed coat would be loosened; then they heat the same in mild temperature for long but under strict observation; control the flame and lastly, husk it in husking machine (*chham*) with the help of a wooden beam (*gayen*) continuously and only then some kind of pressed rice or *chura* is produced. This *chura* is then left to be sun-dried for some days and in this way could be preserved for a long period. Here, the flame of fire and time of flaming are both different from that in the preparation of simple uncoated rice from paddy. The softened seed coat here transforms into the dust and is used as fodder. The pressed processed rice, *chura*, is usually served with card (*dahi*). *Dahi-chura* is one of the most delicious food items to the Rajbanshis.

- Preparation of *muri* (puffed rice): Rajbanshis have learnt the preparation procedure of puffed rice, *muri*, from the immigrant Bengali and the other Rajbanshi fellows emigrated from Bangladesh (now well overlapped with one another). Basically, Bangladesh is a rice bowl. *Muri* preparation needs an oven. The uncoated and uncooked rice is kept in salted water for the whole night or two to make it softened and diffuse the salt particles into the grains. Then on the open-air earthen stove, these rice particles after this salt treatment in the presence of sand and controlled fire is baked for several times. These rice particles in the

earthen *handi* (pot) with heated sand are constantly stirred with jute sticks. In this way, salted rice becomes heated, softened, aired and puffed. Some people like salted *muri* where quantity of the soluble salt applied is higher. After this preparation, the *muri* has to be winnowed from dry heated sand by sieve (*chaluni*) or simply be shaking the mixture in a *koola*. This *Koola* is a semi-circular utensil made up of thatched bamboo strips with concave floor and deeper inside. There the *muri* has to taken atop and be shaken by hand. So, the *muri* particles heavier would go to the deeper end and the sand dust and other unwanted light weight particles to the other outside end.

- Preparation of *khoi* (pressed rice): Old paddy is often heated in sand with continuous stirring by jute stick on high flame and eventually the crunchy soft rice grains are jumped out of the paddy seed coats. This white colored food item (*khoi*) is another form of rice preservation. This is a type of pop. We can say it as pop-rice.

Preparation of *bori* (pulse cake): Pulse-dust of *maskalai* or *thakurkalai* or *khesari* is preserved after it is thickly mixed up with water and then sun dried in the form of small cakes over a white cloth. Sun-drying can continue for three to four days. Pulse is a winter crop whose cultivation begins at late-spring when temperature is being decreased and air still contains moisture. It is harvested in autumn and early summer. Pulse grains are dusted in husking machine. The residue is a good fodder for cattle and poultry. Pulse is a nitrogen fixing plant. Pulse grain can be stored for seasons like the rice. Pulse grains can be baked and that is termed as *dalmut*. This *dalmut* is mixed up with *bhujia*, nuts and

coconut and in this way, a dry food *chanachur* is produced. But, Rajbanshi women are the most familiar with making *bodi* or *bori* from pulse dust emulsion. They often add *jira* spice and pulp of bottle gourd (*chalkumra* or *panikumra*) in the same before drying them in small cakes.

Preparation of *alu bhaja* (potato chips): Potato chips are also manufactured by the Rajbanshi folk community; for this, they usually give the sliced potato chips sun-treatment, often make them salted (salt is a natural preservative) and before frying them in cooking oil, some even add the dry chips into the vinegar for few minutes so as to make these crunchy. Potato is growing in large amount in North Bengal highlands with multiple harvests in the same season. Potato is basically a winter crop and bulbs are grown underground. Wild potato, airy potato and spiny potato are also there. Potato can be propagated in mixed cultivation. There are indigenous verities from Bhutan. Potato leaf is also consumed as vegetable. Potato buds from the bulbs are cut off and stored in dry condition for the next season. Potato however now is growing throughout the year. Potato is a perishable product. So, potato can be preserved to some extent in the form of chips.

Preservation of pumpkin: Pulp of pumpkin or bottle gourd is preserved in form of jelly and sauce. They are extracted, mixed up with water, given a texture of lei, added to sugar, and in this way, sweet jelly is manufactured. Vinegar is often added to this. Watering this product brings in a kind of sauce by adding a few squeezed tomato and hot spices (especially chilli). This emulsion has to be stirred up in a big pot under constant heating. Sometimes, mildly boiled and softened pieces of pumpkin are preserved in condensed sugary water emulsion with vinegar and chilli. Pumpkin cakes are then sun

dried. This type of preservation is called *murabba*. Excess ripened pumpkin or bottle gourd are actually good for these jelly, sauce and *murabba*. Papaya can also be preserved in jelly form.

Preservation of milk [in the form of card or *dahi*]: Card is the most auspicious item for any kind of ceremony. In order to prepare card, the Rajbanshis keep fresh milk in an earthen pot for several days in a clean, dust-free, cool dark room (with earthen wall and roof made by jute sticks and straw acting like a natural cooler or heat resistant chamber); they could also hang the pot from the beams of the roof; and after some days, the card is formed due to the activity of the bacteria and then they pull it down and intake with salt. They do not put any lime extract or sour fruit substance in it like the Bengalis do. Nor they even heat old milk on mild temperature. Rajbanshis for the festival purpose mix some more milk within the card and put sugar on it and stir it continuously while heating; and in this way, sweet card is prepared. Rajbanshis are not usual with the use of milk, but fond of card.

Preparation of ghee (unsaturated fat from milk): Rajbanshis also prepare unsaturated fat from milk called ghee. They warm the milk and take off the upper creamy layer. This collected creamy substance is then again stirred vigorously and a sticky matter is developed. This sticky amount is then warmed up and the upper yellowish unsaturated fatty layer therefore formed is taken out as ghee.

Preparation of *chhana*: Addition of lime juice or tamarind extract into mildly warm milk reacts with the milk and forms an easily digestible clumsy clustered white mass, *chhana*, nutritious and helpful in cooling the body temperature.

Various seed are sun dried and stored in basket or pot by covering the mouth with cloth. These seeds in many cases were fried with sand in an earthen pot. In case of bitterness, they are mildly boiled and again dried. They are winnowed and beaten or grinned to make their dust. Such treatment we can see with jack fruit seed (*kathal*), amla (*malaki*) fruit without the seed and with a sour taste, tamarind seed (*tentul*), corn seeds (*makoi*), and so forth.

Rapeseed like *sarisha*, *tishi* and *til* fruits are first harvested, thrashed and the oil is extracted from them. The oil is stored in high neck earthen pots with a knob. Such pot is called as *pechi*. Oil is used in curry. However, Rajbanshis usually prefer food in boiled and baked condition. The waste product of the rapeseed is used as cattle feed and manure (*khol* or *khoil*) served with seed coats (*tush*) and waste products after winnowing (*bhusi*).

Many vegetables are there that are pieced into chips, baked in mild heat and then fried in oil. This serves for preservation for a short period for two to three days. These fried chips are to be stored air tight.

Pickles: The vegetables and fruits are here to be cur into pieces and after removal of the seed portion and fruit coat dried in the sun for a week. Then salt, turmeric, oil, chilli, ginger and some other spices are added to this. Pickles may be of chilli itself. Plum (*buguri*) is often preserved as pickle for whole of the year.

Fruit coats of orange can also be preserved after sun dry. But this is not a usual practice of the Rajbanshis. Orange fruit coat can be used in bakery in producing cakes.

Various spices like cassia and curry leaves (*tejpata* and *karipata*) are grown up in near the Rajbanshi habitat and they are simply sun dried. They are put in curry to add taste.

Mango and banana are perishable fruits with pulp. They are often collected in immature condition. They then put in a closed kiln underground with alternative layers of dry paddy straw burning into fume. The system underground is covered up by soil at the top layer. But there is a whole and from that through a blow pipe air is forcefully passed into the chamber. In this way, crops are ripened. So, we can preserve our fruits in green and in time bake them into ripened condition.

Mango pulp: Mango juice is extracted from ripened fruits and dried under the sun for 2-3 days. A thin layer is thus formed and on that layer some extra juice is added and sun dried. This layer after layer formation is a constant and lengthy process. As a result, a thick layer is produced. This preserved form of mango bar is known as *amsatta*. People of Malda in North Bengal where many mango gardens are there are involved in producing mango bar. Green mangoes are converted into pickles. Mango tree needs cow dung manure not at its base but in circular modes at its shade. Other organic manure and water are to be added in these circles with time intervals. In these circles, pineapples are often propagated. Pineapple juice, pickles and manure are other productions from mango-pineapple system. Today, Rajbanshis are propagating pineapples in large scale.

Rajbanshis also know preservation of non-food items like hard shell of fruit coast, jute fiber, jute stick, bamboo and cane items, wooden crafts, rain teak (*shrish*), rubber, mulberry, silk cotton (*shimul*), silk (*tasar*), and lac (*lacca*). They sell the skin of their dead

animals from where leather products have been manufactured. They know medicinal benefit of so many plants and often stored their dried leaves, flowers, seeds, fruits, barks and roots with them. Various underground food substances can be kept for some days without any decaying.

Alternative sources of food and non-food items

Lichens, mushrooms, pork, toad, mud fishes, crabs, and snails are seldom considered as food items during natural calamities and scarcity/acute food shortage. Snails they cooked with pulses boiled alive and then suck the juicy portion from inside the shell directly to the throat. They believed in its high protein value without any the scientific evidence and strange! They were all correct. They were the Bengalis who at a time avoided the Rajbanshis for this type of food practice and as a result of this; they gradually shed off this food item from their meal list. Lizard, leech, green leech, fly, ant, spider, ant-like eight feet spider, big spiders without any net formation, large garden snails, apple snails, earth warm and centipede are other components of the garden. Ducks control the excess amount of snails in the pond eco-system. Snails are of three types: apple snails (harmful for the gardening), small snail Nautilus (consumed by man) and mussel (which is actually not a snail). Triton shell (*shankha*) is used as a musical instrument and also ornaments (bangle) are produced of it. Besides Toad, there are frog and flying frog also in the region of North Bengal.

Often, snail, snail consumption, use of snail shells for production of lime, use of lime in preparation of ponds for fishing, consumption of lime either with only tobacco or with betel leaf and nut have built a relationship among themselves. The trade of betel nut – betel leaf – lime – paddy – snail shell – snail through barter system has become very crucial here. Here, the snail collector, the fishermen, the lime producer, the paddy grower, betel leaf grower and the betel nut raisers are equally important. Potters in one hand provide the essential earthen pots and the crop raisers the straw as fuel source to the lime producer.

Curd that is considered to be a main element necessary in any religious or social festival of the Rajbanshi community (cow meat is not taken by the Hindus as it is sacred in Hindu religion); boar, hen, duck and grey hen are eaten also. The bear (*Ursidae* sp.), wild boar (*Sus scrofa*) and monkeys (*Macaca* spp.) of different kinds, like capped langur (*Lemuroidac* sp.) are found in this area of North Bengal. Fox, wild dogs, tigers, deer, bison, wild pig and *gharial* type of fish-eating crocodile are rapidly decreasing in number or have completely lost from the bio-diversity of the North Bengal. In nearby forest areas, animals like rabbit, squirrel, bat, *chamchika*, rat, mole, deer, macaque, bison, tiger, leopard, wild cat, wild boar, elephant, wild dog, fox, civet, water cat and black bear could be found. In old days, beating drums and bugle made up of bison or deer horn are used to call all the villagers in the common meeting place. Rajbanshis generally avoid the consumption of tortoise or its egg [probably due to their origin in *Kashyap* clan; *Kashyap* was the name of a Wise Man, literally meaning ‘The Tortoise’ in Sanskrit. Rajbanshis, during the period of availability of wood, used to prepare their wooden house on wooden trunks. The ladder (with or without wooden handled) was also there; it might be temporary or permanent in

nature. That type of housing was basically in order to protect themselves from heavy flood and dampness in the soil. Many tribal communities of North Bengal are still living in such houses and they set up piggery under the house. On later days, pig cultivation was reduced and pigs were fed vegetables and underground foods like potato and yam. Pork, sheep, and pigeon were also highly favored by them. These items were actually associated with the blood sacrifice in their religious ceremonies, other social festivals and various types of magico-religious performances of the Rajbanshi social fold. Often when a full grown goat is cut, every family of the village or lineage or among the neighbors, the meat was served; the major share goes to the actual owner of the goat. That owner had also the right to sell the skin, bone, horn and head of the goat to the outside market.

Rajbanshi women in production unit

Rajbanshi women collect fern, yam, rhizome, knolkhol and arum as well as leafy vegetables from marshland and canal areas. Women are involved in fishing in local ditches and small fishes there along with *nadiali* fishes in local steams are converted into dried fishes by just leaving the fish pieces in dry sun beam without using salt or turmeric. They have invented various techniques for fishing of pond fishes, river fishes and fishes with extra respiratory organ. Activity of fishes, fish eating birds, frogs, snakes and ants are natural indicator of weather to them.

Rajbanshi women are good with poultry and goat raring, whereas cattle management is mostly managed by male elders of the family. Duck, goose and swans control the population of snails in the pond and actually help in fish cultivation; their stool is a good source of fodder for the fishes. They know about the shrubs like *bichhilara* controlling infectious diseases in poultry. They know about the grasses and herbs that increase the milk productivity of cows. Women are really good will kitchen garden in *uchu* or dangaor upland places where they propagate vegetables and spices. Turmeric, zinger, peppercorn, chilly, cardamom, cabbage and broccoli, cauliflower, mustard, rapeseed, sunflower, bitter gourd, gourd, potato, sweet potato, carrot, beat, *chal kumra* or *pani kumra* (Pumpkin), lady finger, brinjal, snake gourd, cane and bamboo, jack fruit and guava, *kaon, marua* and maize are the basic items of highland. List of vegetables is given below:

English name	Native name	Scientific name	Family
Cabbage	*Bandhakopi*	*Brassica oleracea var capitata*	Cruciferae
Cauliflower	*Phulkopi*	*Brassica oleracea var botrytis*	Cruciferae
Kholrabi	*Olkopi*	*Brassica oleracea var gongyloides*	Cruciferae
Chinese cabbage	*China kopi*	*Brassica chinensis*	Cruciferae

Petsai	*Nati shak*	*Brassica chinensis*	Cruciferae
Saishin	*China shak*	*Brassica parachinensis*	Cruciferae
Mustard green	*Sarisa shak*	*Brassica campestris*	Cruciferae
Turnip	*Shalgom*	*Brassica rapa*	Cruciferae
Radish	*Mula*	*Raphanus sativus*	Cruciferae
Brussels sprouts	---	*Brassica oleracea var gemmifera*	Cruciferae
Water cress	*Sachi*	*Nasturtium officinale*	Cruciferae
Pea	*Motor*	*Pisum sativum*	Leguminoseae
Hyacinth bean	*Sheem*	*Lablab niger*	Leguminoseae
String bean	*Barbati*	*Vigna sesquipedalis*	Leguminoseae
French bean	*Jhar sheem*	*Phaseolus vulgaris*	Leguminoseae
Winged bean	*Kamrana sheem*	*Psophocarpus tetragonolobus*	Leguminoseae
Sword bean	*Makhan sheem*	*Conavalia ensiformis*	Leguminoseae
Lima bean	*Rukuri*	*Phaseolus limensis*	Leguminoseae

Vegetable soybean	*Soyabean*	*Glycine max*	Leguminoseae
Tripatri leaves	*Tripatri shak*	*Desmodium trifolium*	Leguminoseae
Yam bean	*Shakalu*	*Pachyrrhizus tuberosa*	Leguminoseae
Sweet gourd	*Misti kumda*	*Cucurbita maxima*	Cucurbitaceae
Bottle gourd	*Lau*	*Lagenaria siceraria*	Cucurbitaceae
Wax gourd	*Chal kumda*	*Benincasa hispida*	Cucurbitaceae
Cucumber	*Shasa*	*Cucumis sativus*	Cucurbitaceae
Cucumber (short)	*Khira*	*Cucumis anguina*	Cucurbitaceae
Ribbed gourd	*Jhingga*	*Luffa acutagula*	Cucurbitaceae
Sponse gourd	*Dhundul*	*Luffa cylindrica*	Cucurbitaceae
Bitter gourd	*Ucche/Karala*	*Momordica charantia*	Cucurbitaceae
Teasle gourd	*Kakrol*	*Momordica cochinchinensis*	Cucurbitaceae
Palwal	*Patal*	*Trichosanthes dioica*	Cucurbitaceae
Snake gourd	*Chichingga*	*Trichosanthes anguina*	Cucurbitaceae
Squash	*Squash*	*Cucurbita pepo*	Cucurbitaceae

Muskmelon	*Banggi*	*Cucumis melo*	Cucurbitaceae
Ivory gourd	*Tala kuchi*	*Coccinea cordifolia*	Cucurbitaceae
Snap melon	*Futi*	*Cucumis melo var momordica*	Cucurbitaceae
Oriental melon	*Chinar/Banggi*	*Cucumis melo*	Cucurbitaceae
Watermelon	*Tarmuj*	*Citrullus lanatus*	Cucurbitaceae
Potato	*Alu*	*Solanum tuberosum*	Solanaceae
Brinjal	*Begoon*	*Solanum melongena*	Solanaceae
Tomato	*Tometo*	*Lycopersicon esculentum*	Solanaceae
Sweet pepper	*Misti marich*	*Capsicum annuum*	Solanaceae
Chilli	*Jhal marich*	*Capsicum species*	Solanaceae
Okra	*Dhedosh*	*Abelmoschus esculentus*	Malvaceae
---	*Laffa*	*Malve verticillate*	Malvaceae
Rozelle	*Chukur*	*Hibiscus sabdariffa*	Malvaceae
Stem amaranth	*Danta*	*Amaranthus lividus*	Amaranthaceae
Red amaranth	*Lalshak*	*Amaranthus gangeticus*	Amaranthaceae

Spiny amaranth	*Katanotey*	*Amaranthus spinosus*	Amaranthaceae
Leaf amaranth	*Noteyshak*	*Amaranthus viridis*	Amaranthaceae
Haicha	*Chanchi*	*Alternanthera sessilis*	Amaranthaceae
Indian spinach (green)	*Puishak (sabuj)*	*Basella alba*	Basellacease
Indian spinach (red)	*Puishak (lal)*	*Basella rubra*	Basellacease
Spinach	*Palonggshak*	*Spinacia oleracea*	Chenopodiaceae
Beet	*Beet*	*Beta vulgaris*	Chenopodiaceae
Goose foot	*Bathua*	*Chenopodium album*	Chenopodiaceae
Marsh herb	*Helencha*	*Enhydra fluctuans*	Compositeae
Lettuce	*Lettuce*	*Lactuca sativa var. capitata*	Compositeae
Water spinach	*Kolmi*	*Ipomoea aquatica*	Convolvualceae
Kangkong	*Gima kolmi*	*Ipomoea reptans*	Convolvualceae
Sweet potato	*Misti alu*	*Ipomoea batatus*	Convolvualceae
Carrot	*Gajor*	*Daucus carota*	Umbelliferae
Indian penny wort	*Thankuni*	*Centella japonica*	Umbelliferae

Parseley	*Parseley*	*Petorselinum crispum*	Umbelliferae
Celery	*Celery*	*Apium graveolens*	Umbelliferae
White yam	*Matey alu*	*Dioscorea alata*	Dioscoreaceae
---	*Pesta alu*	*Dioscorea bulbifera*	Dioscoreaceae
Cassava	*Shimul alu*	*Manihot esculenta*	Euphorbiaceae
Eddoe	*Mukhikachu*	*Colocasia esculenta*	Araceae
Tannia	*Dudkachu*	*Xanthosoma violaceum*	Araceae
Tannia	*Moulavikachu*	*Xanthosoma atrovirens*	Araceae
Giant taro	*Mankachu*	*Alocasia macrorrhiza*	Araceae
Elephant foot aroid	*Olkachu*	*Amorphophallus campanulatus*	Araceae
Drumstick	*Shajina*	*Moringa oleifera*	Moringaceae
Plantain	*Kanchkala*	*Musa paradisiaca*	Musaceae
Green papaya	*Papay*	*Carica papaya*	Caricaceae
Bunching onion	---	*Allium fistulosum*	Liliaceae
Asparagus	*Asparagus*	*Asparagus officinalis*	Liliaceae

Sorrel	*Tak palangg*	*Rumex vasicarious*	Polygonaceae
Jute leaf	*Patpata*	*Corchorus capsularies*	Tiliaceae
Water lily	*Shapla*	*Nymphaea stellata*	Nymphaceae
Giant carandilla	*Sheeta lau*	*Passiflora quadrangularis*	Passifloraceae
Immature jack fruit	*Echad*	*Artocarpus integrifolia*	Moraceae
Baby corn	*Choto bhutta*	*Zea mays var. saccharata*	Graminae
---	*Malencha*	*Jussiaea repens*	Onagraceae
Wood sorrel	*Amrulshak*	*Oxalis europaea Jord*	Oxalidaceae
Garden purslane	*Nunia*	*Portulaca oleracea*	Portulaceae
Fern	*Dhekishak*	*Dryopteris filix-mas*	Polypodiaceae

From jute, fibers are collected in special way. Hollowed jute sticks are used in roof manufacturing of traditional house. Fibers of jute and flex are raw material of clothe and sitting mattress (*dhokra*). Indigenous looms are generally used. *Sona* and *tita* are two important verities. Leaves of later variety are consumed as vegetable for their bitter taste and medicinal importance. Fibers of the second type are generally used for making of mattress and such other rough products. The jute sticks are submerged in stagnant ditches with the help of floating trunks of banana inflorescence. Then those jute fibers are washed

with clean water of little streams and easily fibers are extracted leaving the hollow sticks (*pat kathi*). Both the products are dried: sticks are used in roof construction: they are light in weight and capable of air conditioning. They are also good source fuel. Fibers of *sona* variety are used in making clothes. Short and harsh fibers of *tita* variety are used for rough use. Jute and flex are cultivated during rainy season in lowlands submerged under flood water. And in late monsoon season when raining is being reduced, fibers are collected. Jute fibers are hanged at first and then thread is manufactured. The entire process is called *panjipara*. A slate stone chip of 9 inches diameter with a hole at the center is taken and a bamboo stick is pierced in through that hole. That tool is called *as takuri.* The stick is used as liver and by rotating this stick clockwise torque is created and it actually works as a spinning machine.

Rice is consumed in various ways, such as, boiled rice with salt, rice with pulses, vegetables and other non-vegetable items. They stored the rice in dry preserved condition. They first wet the rice, then fry it hot, and press in *chham* (husking machine) with *gyin* (leaver/handle) manually so that the rice portion comes out from the seed coat; the seed coat is used both as manure and fodder; whereas the pressed rice, *chura*, is served with card which is till the most auspicious item for any kind of religious ceremony or festival for the Rajbanshis. The community is fond of card/*dahi,* and unsaturated fat, i.e., *ghee*. Fresh milk from the cow is immediately kept in earthen pot in cold place and in this way they prepare the card (*goleya dahi*). So, *dahi-chura* was one of the most delicious items for them. *Foktoi* is a pulse-like dish prepared from mixture of fried dust of *chura* and

garlic which is cooked in boiled water with mustered and chilly. They also prepare *vapa pitha*, another exclusive rice item with some specific economic attribute to the Rajbanshi society. Here, they take some rice dust and prepare soft watery lei of it, then give shape of disk-like cakes that they cook on steam one by one. For steaming, they again take a *handi* (earthen cooker) on fire with boiling water inside and the vapor coming out of the single pore at the center of the lid automatically bakes the rice cakes into delicious *vapa pitha* cakes. Till now they fry their home-made soft rice and take this fried rice (*chal bhaja*) with tea in the early morning. They boil rice in water which is their main food item (*bhat*) and also consume the nutritious watery emulsion of the boiled rice, fen or telani, with garlic. Husked rice in home in *chhum-gyin* is only decoated but the nutritious cotyledon part remains attached. Rajbanshis pour slight water over cooked rice and preserve this for the whole night which becomes another item (*panta bhat*) for the breakfast meal. Watery cooked rice could be further fermented so as to prepare alcoholic substance added with sucrose and dust of rice coat (kind of fodder). Rajbanshi females used to engage in preparation of *dahi, ghee, chura, muri*, salted *muri*, husked rice and *vapa pitha* within homestead whereas the males go to the field and participate in the process of crop-cultivation. Females generally prepare the *vapa pitha* at night and then early in the morning go outside for selling the cakes at the exchange of other goods- a typical barter system. They collect rice by selling the *vapa pitha*. And from these collected rice, they feed their family and again produce the rice cakes for next day selling. Prosperous families do not let their women to go into the field, maintain joint-extended families to meet the manual labor and generally apply day labors on temporary basis.

From the dried straw of the paddy, the Rajbanshis prepare sitting blocks and cautions, shade their roves, produce guard rings of round-shaped earthen pottery, and arrange good quality of fodder and fuel. They use paddy straw on the fishing net with cow dung and superfluity; it helps in quick fishing in village ponds. Airy and hollowed straws in bunches over the roves are good for controlling the home temperature in both hot summer and cold winter.

The slopes of uplands are often found covered with ferns of numerous types, some being highly edible and nutritious. Women are involved in collection of the newly grown leaves which they cook as their daily vegetable. These Rajbanshi womenfolk have the capability to use their fingers very swiftly with the very consideration that the leaves do not have sores. Such capabilities are highly required in tea gardens so as to collect the young tea leaves with buds. But still now, no one of Rajbanshi womenfolk is interested in accepting the job of leaf collection in tea gardens. They prepare delicious dish of fern with young tips of new bamboo shoots; for the latter, they cover the out-coming shoot from subterranean rhizome under an earthen pot.

The next most important vegetation is of bananas. Sweet bananas of *chinichampa* variety with small and dark spots on their body are essential in religious ceremonies. *Anaji* is the green banana used in curry. *Sabri, Madna, Fans* and *Martaban* are

some of the sweet varieties. Banana local variety with seeds, *daya kela* or *bichia kela* (*bichia*= seed; *kela*=banana) at the green condition used in medicinal purpose (curing abdominal diseases and constipation). The banana fruit inflorescence in the good variety of *Malvog* grows to the optimum level and therefore riches up to the soil. They cook the banana fruit inflorescence. The 'trunk' leaf inflorescence is also cooked as a food item. They use banana leaves as plates for serving food and also for packaging of various types. *Bichia kela* is with medicinal importance: seeds are curative for worms, a glass of fresh water coming out of a young leaf inflorescence helps in stomach problems and it is the main item for the preparation of traditional food item *chheka*. The filtered water of sun-dried dust of subterranean rhizome of the plant coming out from the hole at the bottom of coconut shell provides waxy nature in the vegetables. Small *lafa* leaves grown in spring-winter are tastier and with this *chheka* the dish prepared is called *pelka*- it reduces body temperature and prevents the germs and dust to enter into the lungs through nostrils during thrashing the paddy throughout the weather-changing season of late-spring *Hemanta*. Sun-dried fresh pieces of local varieties of small fishes in ponds and streams (*shutka*) are dusted in *chham-gyin* with waxy leaf-base of certain arum varieties (*mann/kala*) locally propagated. Mustered oil, garlic, chilly and turmeric are used to prepare fish-balls from this waxy fish dust (*sidal*). Balls are then fermented in tightly closed earthen pots filled up with *chheka* dust. After 5/7 days, seal is broken up to release the balls then baked (*autha*) or cooked with curry and water of *chheka*.

For washing the clothes, Rajbanshis use soda which they produce from the base of the banana tree (this base is the actual portion from where the leaf inflorescence comes out as “the tree” from the underground rhizome). They submerge this trunk base for long in water and when it started to be rotten out, the waxy extract they collected and used as soda.

Edible soft inflorescence of ferns (*dheki*) is a good source of food. Rajbanshis eat non-vegetable items also: fish, hen, duck and goat are domesticated, bartered and reciprocated. Rajbanshi women are also aware of agro-forestry, kitchen garden, sacred groove, medicinal plants and fencing.

Conclusion

This paper deals not only with food preservation of Rajbanshis of North Bengal, but also the role of their women, alternative food items and some uniqueness in their production system (especially use of biodiversity) that they classify in their own and promote from too much traditional to certain modernity. This is basically a kind of documentation.

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