

Indigenous Rice: Development Initiatives and Change among the Garos Assam, India

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ABSTRACT: Paddy plays a special role in the ideological, ritual and social role among communities in Northeast India. In this region many varieties of paddy are grown, which are traditional or indigenous in nature having been nurtured over centuries and passed down through generations. This paper seeks to look into the status of such indigenous paddy (and rice) vis-à-vis non-indigenous varieties and their changing dimensions among the tribal Garos of Assam. This is a micro study, empirical in nature, and based on the Garos of a village in Kamrup district in Assam. This paper will show how this change in the traditional species of paddy has come about due to development initiatives of the State government, such as introduction of hybrid varieties of paddy with higher yields. The introduction of chemical fertilizers, to enhance paddy produce, and pest repellents has also brought in certain changes, not only in the physical ecology but also in the food-cycle of the area.

INTRODUCTION

Domestication of paddy or rice (*Oryza sativa*) occurred more than 8000 years ago and led to a series of developments in paddy cultures over millennia, making it the most important food item for more than half of the world's population (Nene, 2005). In the Indian subcontinent, wild rice was eaten in the advanced Mesolithic or pre-Neolithic (c. 8080 ± 115 BC) period at Chopani Mando. Rice (cultivated – *Oryza sativa*; wild annual – *Oryza nivara*; and wild perennial – *Oryza rufipogon*) was prolifically used as husk and chaff in pottery temper at the prehistoric sites of Koldihawa (c. 6570 ± 210 BC) and Mahagara (c. 5440 ± 240 BC) in Uttar Pradesh. The discovery of grains of cultivated rice at Mahagara establishes the cultivation of *Oryza sativa* in the subcontinent to about 6000 years BP (Bhattacharya, 2001, Chakrabarti, 2008).

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In Northeast India till date no evidence of rice in the archaeological context have been reported which could have given clues when cultivation of this plant began in the region. However it is evident that many archaeologists consider this region to have witnessed rice production quite early. As Glover ('85:266) says, "India is the centre of the greatest diversity of domesticated rice with over 20,000 identified species, and Northeast India is the most favourable single area of origin of domesticated rice". Paddy or cultivated rice (*Oryza sativa*) plays an important role in the lives of the people of Northeast India including the tribal Garos. In India, Garos predominantly live in the state of Meghalaya in the districts of East, West, South, North, and South-West Garo Hills; however, they are also found in small pockets in neighbouring states such as Assam, Tripura, Nagaland and West Bengal. Across the political divide, they reside in the northern districts of Bangladesh (Majumdar, '80).

Garos are shifting cultivators, cultivating a large amount of crops in their fields, starting with the staple, which is rice, and followed by other crops such as millet, tapioca, pumpkin, varieties of gourd, varieties of bean, sorrel leaves, chillies and other crops. This situation prevails in the hilly pockets of Garo-dominated areas of Garo Hills in Meghalaya (India) even today. In Assam and Bangladesh, where Garos are plains-dwellers and a numerical minority, shifting cultivation is beginning to be replaced by wet paddy. It is not known when rice cultivation started among the Garos, even though it is said to have begun quite a long time ago. Garo folklore tells us that the god of wind in collaboration with the god of hail and storm shook off seeds from a celestial tree of wealth. These seeds were picked up and sown by the ancestress of a bird called *doamik*. From her the supreme god of the celestial regions obtained the seeds of rice and planted them in his own fields. Pitying the human beings living in those days without grains such as rice, he gave them the seeds, with instruction that at the beginning of every harvest a portion of the first harvest must be kept aside for him (Rongmuthu, 2008).

This paper will look at rice among the Garos, and the cultural value of indigenous rice in opposition to non-indigenous rice. Changes in the variety of rice cultivated and consumed have come in, therefore the causes of these changes and the after-effects are also dwelt upon. In conclusion the future prospects of indigenous vis-à-vis non-indigenous rice are laid down. The data incorporated herein is original, empirical data collected through a period of three years, from mid-2006 to year end-2009, in the author's pursuit of Garo foodways. The focus of this study is geographically contained in a village called Gohalkona situated in Boko circle of Kamrup district in the state of Assam in India. This village is uniquely situated between the predominant caste populated Boko area of Assam and the Khasi populated Nongstoin area of Meghalaya. It falls under Boko Police Station, Kamrup District, though it is only a few kilometres away from Nongstoin, West Khasi Hills district in Meghalaya state. In all, Gohalkona has 258 Garo households, with a total population of 1367, males numbering 632 and females 735 (from personal census data collected in December 2006). The mainstay of the inhabitants is agriculture. Every

household practices some form of cultivation. Their methods of cultivation vary from slash-and-burn to wet paddy, and vegetable gardens to cash crop plantations. There are only 29 individuals engaged in some kind of service/jobs ranging from school teachers to peons, drivers and security guards. Besides agriculture, a few engage in sericulture, carpentry, weaving, basketry, and daily wage as well.

RICE IN GARO LIFEWAYS

Rice, locally referred to as *mi*, plays a central role in a Garo's life. It is the first solid food item that a child takes, and the last food item that he/she partakes on death, though ceremonially. It is that item which marks all celebrations and rituals, and without which no clan or family gathering is complete.

Many times it is seen that the structure of a food system is heavily influenced by the nature of its staples or focal foods. Such foods are eaten frequently and generally constitute a large portion of a people's caloric intake. Rice (*mi*) is the staple food of the Garos. This is the most frequently eaten food item, which is served at home and outside, to family members and guests. Other cereals like millet and wheat are also grown (though the latter, in less frequency, is said to be a new introduction). It is again a food item which is served in different forms throughout the meal cycle: as cooked rice, the first item to be served, as a curry, in the form of ground rice preparations, as a drink (rice beer, *chu*, was frequently served before Christianization set in), and also as snacks (pancakes, rice-cakes, cookies etc.).

Rice plays a special role in the ritual and ideological life of the Garos. There are special planting, maturation and harvesting rituals for it that does not exist for any other crops and plants. Majumdar (1980: 60), while giving an account of rituals connected with shifting cultivation, says that the cycle begins with the ceremony connected to burning of plots called *agalmaka*, comprising the worship of the spirit of the *aba* (shifting plot) by each household individually by sacrificing a fowl. This ceremony is accompanied by dances, feasts and drinks. In some areas a second ceremony called *michil tata*, in honour of Rokkime, the spirit of the rice plant and general prosperity is held by the entire village. Before the harvest, another ceremony called

rongchugala is jointly conducted by the villagers. At the end of harvest, a ceremony called *ahaia* or *jamegipa* is performed to cast off taboo on certain food crops. The final ceremony connected with shifting cultivation, *wangala*, takes place immediately and this marks the end of the year for a shifting cultivator. This is held in honour of Saljong, the spirit residing over the crops of the shifting plots. These later rituals are for all important crops inclusive of paddy.

Some rituals still exist in Gohalkona especially those connected to rice harvests. The studied village takes part in an annual three-day *wangala* festival held by the Garos of lower Assam. This is held in the month of November (supposedly after harvest, even though in practice many would not have yet harvested their crops) to mark the *wangala* ritual of the forefathers. This is marked by dance, playing of drums and communal consumption of rice beer. This annual festival held in lower Assam, first started in 2000, has now taken a festive mood by the introduction of traditional sports, dance, song and story-telling competitions. Interestingly however, the above rituals for the propitiation of Rokkime and Saljong were done traditionally by *Songsareks* who continue to follow traditional beliefs and practices. However the studied village is completely Christianised, nevertheless the inhabitants take part in the communal *wangala* festival that is held annually. However, this festival is secularized to a large extent and only traditional dance, music, and sports are conducted.

With the coming of Christianity, the Garos no doubt abstain from traditional rituals in the village, but nevertheless substitute the earlier rituals with newer ones. These new rituals consist of praying to the Christian god for a good crop at the beginning of the cultivation of rice in the shifting plots, as well as a thanksgiving meal referred to as "*mi gital*" ceremony which is conducted every year before the first consumption of rice from the plots. Thus, the symbolic foods appropriate for ordinary meals and for sacrifices have significant overlap. As Douglas (1997:37) observes there is "a very strong analogy between table and altar". In village Gohalkona too, a large number of food offerings to God (i.e., the church) are seen. These offerings include rice, areca nut, coconut and orange trees, fowls, and at times vegetables as well.

These offerings are made in memory of a beloved one who passed away or whenever there is bountiful harvest. It is seen that only the best food crops, such as the *bite nangbatgipa* (most fruitful) areca nut plant, or the *silbatgipa* (most flourishing) coconut trees etc., are offered.

Obligatory donations are collected for the church too. *Mi jakep* (handful of rice) is collected from every household for the church. *Mi jakep* refers to a handful or fistful of rice kept aside every time rice is prepared for a meal, be it mid-day or evening meal. Every time a meal is cooked a fistful of rice is kept aside for the Christian god. This uncooked rice, so stored, is collected every week by the church collector from every household. All the rice thus collected is then sold off for ₹ 10 per kg on Monday and the money thus collected is kept in the church treasury. Again, every year after harvest half a *mon*¹, approximately 15 kilograms, is collected from every household for the church, and another half a *mon* for *Krima Soba*, the VIIIth Garo Baptist Convention. The *pamong*, who is a full-time church leader, also receives a donation of 1 *don/duli* (5 kgs) per house in a year. The above donations, except the obligatory *mi jakep*, are not mandatory and those who cannot afford are exempted while those who are affluent give more than the required amount.

The consumption of rice is mandatory in any communal gathering. No feasts, rituals, or celebrations connected to birth, death, and marriage, or in connection to clan activities, is complete without the serving and eating of rice. There are special varieties that are sacred and must be used in rituals, such as *mimitim doka* and *mimitim dokru*. During festive occasions, *jaha mi* is cooked and served. The rice species that is used for making festive cakes, pancakes, cookies etc. is *mi minil*, *mimagisim*, *mimitim gitcak* and *mimitim doka*. Thus a differentiation is made between rice on the basis of its functionality. There exists a strong emic value put on the consumption of rice. "Have you eaten rice?" is a very common greeting. In fact, mid-day meal is referred to as *mi sal* (daytime rice) and evening meal as *mi attam* (evening rice). Rice is avidly sought after by guests at feasts as though it was of extreme value. No feast among the Garos is complete without rice. It can always be exchanged for other commodities due

to its high prestige value whereas the same is difficult for other food crops.

Again, the quantity of rice harvested and how long it subsists the family forms the basis of affluence or poverty of the family. If the produce of a household lasts for a year, the family is *manechaom* (getting to eat = affluent). If a household has excess rice that has to be sold after a year's consumption then they are *manechabeom* (getting too much to eat = very affluent). If a family does not get enough to subsist for a year, they are referred to as *manechajam* (not getting to eat = poor); if a family lives hand to mouth, *kangalongbeom* (nothing to eat = very poor).

METHODS OF CULTIVATION

There are two methods of cultivation of rice in the village: Dry or slash-and-burn cultivation, and wet paddy cultivation.

Dry Cultivation

Dry cultivation is practised in a minor scale in the village in comparison to wet cultivation. A plot covered by jungle is cleared in the dry months just before monsoon. It is allowed to dry for a month or two. Just before the rains come the plot is set on fire. On the ash-covered soil, seeds of various plants are sown. Such a plot is used for a variety of crops. These plots are referred to as *aba*, and the cultivation as *aba chaani*. The method of dry cultivation and the crops grown vary widely from village to village. In Gohalkona, dry cultivation has often given way to cultivating on the same plot of land for years together, and thus takes the form of slash-and-burn.

The various stages of dry cultivation include the following:

- *Aba nia* (*aba* = field, *nia* = to see): Selection of plots is made sometime in the last part of December even though an individual may have kept an eye on a particular plot of land for quite some time. On the day of selection and allocation of plots, each head of household clears a token patch and marks the boundary. Actual clearing may be postponed for some time. Men do the clearing work.
- *Waa soa* (*waa* = bamboo, *soa* = to burn): Scrubby undergrowth is cut, but big trees are not felled.

The cut grasses are left to dry for a few days before they are set afire. Immediately afterwards, men get busy building a field house called *aba nok* or *borang*. In Gohalkona, only one *aba nok* standing tall on a tree-top was seen, though left un-used for long. The custom of building the field house has disappeared due to infrequent use of field houses since for the major part of the year the household is engaged in wet paddy cultivation.

- *Bitchil sata* (*bitchil* = seed, *sata* = to plant): A few days after the jungles in the plot are burnt, seeds are planted. There are different ways of planting seeds in an *aba* which include the following:
 1. *Gea*: A hole is dug with the hoe (*gitchi*) and the seed or root or head of the plant is planted and covered with soil.
 2. *Baka*: Seeds are first broadcasted and then the soil is lightly hoed, so that the seeds become embedded in soil.
 3. *Sata*: Seeds are strewn over the lightly hoed plot.
- *Aba Oa* (*aba* = field, *oa* = to weed): The next stage in dry cultivation after the seeds are planted is weeding. The first weeding takes place when the seeds sprout and attain a certain height, which depends on the crop. For weeding, the soil is lightly loosened with the hoe, taking care not to damage the growing saplings, and unwanted weeds are disposed off. Second major weeding takes place when plants are firmly rooted. Planting, sowing of seeds and weeding are a woman's job.
- Harvesting is the last stage in such a method of cultivation. Crops are harvested as and when they ripen. Tools used include chopper (*ate*), axe (*rua*), hoe (*gitchi*), and sickle (*katchi*).
In dry cultivation, a clear division of labour is seen between the sexes. Men select the plot, clear and burn the shrubs, build the field houses, prepare the soil and women sow, weed, harvest etc.

Wet Cultivation

Almost all inhabitants of Gohalkona (82%) hold some permanent land for cultivation, out of which

only a fraction 48% possess wet paddy plots. Those who do not possess sufficient land or no land at all augment their crop yield by cultivating in others' land or on a share-crop basis. The permanent paddy fields, called *patal* in Gohalkona are used only to cultivate rice. Wet cultivation is practised in these lands. Usually two seasonal crops of rice are grown: one sown in spring and harvested in summer, and another sown in summer and harvested in autumn. It follows certain stages:

- *Mechil sata* (*mechil* = seed, *sata* = to throw): In the first stage, rice seeds are strewn in small well irrigated plots. When the saplings are about 103 tall, they are carefully uprooted and are ready for transplantation called *mi gea*. This is usually done by women.
- *Mi gea* (*mi* = rice, *gea* = to grow): This is the stage in which the saplings are transplanted onto well-ploughed (by bullocks), well-fertilized and well-irrigated paddy fields. Ploughing of the fields is done by men, whereas transplantation is done mostly by women. Thereafter, not much effort is needed till the rice stalks grow and ripen, when harvesting sets in.

The process of harvesting comprises:

1. *Mi rata*: Here, rice stalks are reaped with a sickle (*atchli/ katchi*), tied in bundles, kept in the fields and later transported.
2. *Mi naka*: This refers to threshing of rice stalks in order to separate the grains from the stalk. This is done by making one or two bullocks walk over the paddy stalks several times till the rice grains separate from the stalks. *Mi naka* is done in the courtyard of the house.
3. *Mi jipa*: This refers to winnowing in order to clean the rice grains, which has been collected after *mi naka*. The larger stalks are separated by hand, whereas to separate bits and pieces of stalk, the grains are simultaneously and repeatedly winnowed by the winnowing fans (*ruan*), till only the rice grains remain.
4. *Mi toa*: The clean rice is then measured in baskets called *don* and stored in the rice store house called *mi jam*.

Grains are stored after the process of *mi jipa*. At the time of storing, grains of different varieties are never mixed up. Specially selected grains are stored for the next season to be used as seeds, in a basket.

In dry cultivation the household is the working unit. The men clear the plot and set it on fire. Clearing and ploughing of the plot is a job done by both men and women. Sowing and weeding is done by women. Harvesting is done by both the sexes. Since the plots of land are small (plots of land are given/ claimed according to the capability of the family concerned), need for help from outside the family does not arise. At times, due to inability of the family members to till the land, they take the help of daily wage earners who are paid 70 for men and 50 for women workers. Rice procured from the *aba* is consumed at the family level. However, close relatives are called for a feast after harvest in which rice from shifting plots (*abani mi*) is cooked, and served with meat curry. If there has been a good harvest of some vegetable crops like pumpkin, tapioca, arum, chillies and sorrel leaves it is shared with those who had little or none. Sometimes when there is a bountiful harvest, some of the produce is donated to church as thanksgiving.

In wet cultivation too, the household is the working unit. Here too sexual allocation of work is seen. Ploughing, harrowing and all activities connected with preparation of soil are done by men. Women help in transplantation and occasionally harvesting. There are many in the village who do not own sufficient land. They supplement their food supply by share-cropping, called *adi chaa*. In share-cropping, the produce is shared equally. However, the seeds for next year's cultivation are kept from the sharecropper's share. The sharecropper also bears all expenses towards fertilizers. If the sharecropper uses daily wagers to help in the field, their salary of 70 for males and 50 for females, or rice-share of 1 *duli* per day (5 kilograms) will be first taken out before sharing the harvest with the owner.

Replacement of Dry with Wet Cultivation

Dry cultivation has over the years gone down tremendously. Possibly the reasons could be the following. First, the National Forest Policy (1952) of the Government of India and the state which in order to preserve "forest areas" came down heavily on

jhumming and the jhumias. Even though the farmers of the village were not arrested, the fear of being arrested by the Forest Department officials and punitive measures taken led many to give up this cultivation. Secondly, the jungles where dry cultivation was undertaken have now been reportedly turned into semi-permanent camps of some extremist groups; thereby forcing the villagers to give up their age-old practice. Thirdly, due to the increase in population and extenuating reasons as cited above, the jhum cycle lessened. That is, the number of years a plot is left fallow decreased from over 10 years to 2 or even 1 year, and in many cases none at all. This feature does not allow the soil to recover and regain its fertility and therefore the outcome of the produce is much lesser than expected. All these have ultimately aided in substituting dry with wet cultivation.

TYPES OF RICE VARIETIES

In the above the different types of cultivation were discussed because it is intrinsically linked to the types of rice grown. Garos have been known to be rice cultivators for a very long time. This is supported by oral literature too which talks of a time when celestial beings made rice known to them. Even though in Garo Hills it is not clear from archaeological evidences (Roy, '81) which type of cultivation (wet or dry) began first, in Gohalkona it is obvious that they were dry cultivators before where traditionally only some specific varieties of rice was grown. These varieties are those which are known to have been passed down through generations, and moving with the people as they moved from one place to another.

Presumably the first settlers were initially fully dependant on cultivation of rice and other food crops in dry fields. This can be gleaned from stories of how the first settlers on seeing the area on a swampy valley were reluctant to settle down. They did not know how to go about cultivating rice except in the far away hills where much fear and terror reigned, on which a few nevertheless ventured. However few adventurous early settlers sowed rice on the swampy lands, and their initial consternation gave way to a joyous surprise at the bountiful harvest. The initial dismay was perhaps due to lack of experience in tilling land in a swampy area since all experiences must have been focused on the hills.

There exist two varieties of rice that is grown: indigenous and non-indigenous varieties. Some of the varieties of rice that were earlier grown on dry plots and are indigenous in nature include *chidare*, *chabachang*, *migra*, *miminil*, *mima*, *mikotchu*, *malbok*, *padrap*, *mikidip*, *misokmil*, *miritim*, *midokru*, *mimagisim*, *mimitim gitchak*, *mimitim doka*, *mimitim dokang* and *chualjo*. These are traditional and local varieties as their nomenclature suggests. In those limited areas in the village where the former practice still continues the number of species of rice grown has come down tremendously. Only varieties such as *chasep*, *migra*, *miminil* and *mima* are still grown, while all the other traditional varieties have disappeared.

In permanent wet cultivation fields it is not the indigenous but newer varieties of rice are grown. These are mostly hybrid, fertilizer-enhanced and high yielding ones introduced by the State Agriculture Department. These include species such as *mibangal*, *heldiram*, varieties of *parimal*, *aijong*, *betguti* and others. The term *mibangal* (*mi* = rice, *bangal* = non-Garo) refers to a variety of rice that is not Garo in origin, and therefore is not an indigenous variety. Similarly *heldiram*, *parimal* and others are non-Garo names indicating that these are non-indigenous and newly introduced varieties.

There exists a substantial difference in the quantity of the produce (i.e., rice) from dry and wet cultivations, i.e., yields from indigenous and non-indigenous varieties. Growing indigenous rice in the *aba* is mostly ceremonial, since the outcome is minimal. However, the value attached to it is much more in comparison to non-indigenous rice. The former is said to be tastier, better, more fragrant and more filling than the latter. Again, the former variety has more prestigious connotations than the latter, whereas it is the latter which defines wealth and prestige. This is due to the fact that newly introduced rice has more yields in comparison to traditional rice and therefore not only subsists the family throughout the year but also aids the owner economically through trade with co-villagers and outsiders thereby leading to accumulation of cash wealth.

CHANGES IN RICE CULTIVATION

In order to better enhance productivity, Garos have been using fertilizers, albeit local, for a long time.

They are also known to use local pesticides to rid of pests in their fields. These local fertilizers were mainly of two kinds: cow manure and ash from eco-products. Even today a percentage of farmers (72%) use this in their kitchen gardens and shifting plots. However, farmers rue the fact that it is difficult to use such bio-fertilizers on wet paddy fields. Therefore every farmer in the village has used chemical fertilizers at some point of time in their wet fields. Presently, however, farmers have realized the ill-effects of chemical fertilizers, and some (67%) are trying to do away with it. The ill-effects include a cycle where the same or stronger variety of fertilizers has to be used in the same plot. They now realize that the natural fertility of the soil has disappeared. Many are however now increasingly letting the cows roam freely after harvest to attract manure for the next season of cultivation. The rice stubs left in the fields are also dried and burnt to procure ash which is then evenly distributed in the fields.

Regarding pesticides, Garos still use some bio-products which include the following:

1. Use of *jambura* (*Citris grandis*): A cut portion of the *jambura* is placed either on a stick or on the ground. It attracts bugs which stick to it or get inside. By the time the fruit is totally dried, there will accumulate a number a bugs inside. It is then burned and thus the bugs killed.
2. Mixture of garlic and ginger: Equal portions of garlic and ginger is made into a paste and kept overnight to decompose. It is then mixed with water and sprayed over paddy to protect it from insects.
3. Use of *neem* (*Azadirachta sp.*) leaves: *Neem* leaves are grinded and sprayed in kitchen gardens to protect crops from pests. *Neem* leaves are also kept in granaries to repel stored grain pests.
4. Use of ash to protect crops: Household ash is regularly sprayed in and around vegetable crops in kitchen gardens as a pesticide and also to enhance fertility.
5. Use of traps to catch rats: Different types of rat traps are constructed utilizing local resources. These traps are placed in different places to catch rats.
6. Use of scarecrows: Different types of scarecrows like statues; puppets etc of different colours are

placed in crop fields. Again various wind or water operated devices to create peculiar sounds are also placed in or near crop fields.

A smaller percentage of farmers (23%) however have used artificial pesticides like DDT sprays, pesticides for killing rats and other bugs.

ROLE OF STATE AGRICULTURE DEPARTMENT

At Boko town, about 10 kms from the village, there exists an office of the State Agriculture Department which assists farmers with subsidized seeds and fertilizers. It is from this centre that Garos buy newer breed of rice-seeds and fertilizers for their wet cultivation. These rice-seeds are hybrid and lab-produced seeds which have higher yields. Due to its high-yielding properties, Garos increasingly prefer to grow them. Interestingly, these seeds are ones which do not grow as expected in the dry fields such as the shifting plots, and are ones which grow luxuriously in the wet paddy fields especially with the use of fertilizers.

In a span of 5-10 years, however, the fertility of the soil dwindles and it becomes necessary for the farmer to use artificial fertilizers from the market. Initially Garos had used bio-products such as cow dung and ash from burnt jungles. Later however, they started preferring subsidized chemical fertilizers from the Agriculture Department. Unfortunately once these fertilizers are used, the plot becomes useless unless more of the same is used repeatedly. This leads to a cycle where the same kind of rice (genetically enhanced) and fertilizers had to be used continuously.

It is thus seen that due to subsidies on chemical fertilizers and rice-seeds introduced by the government of India through the aegis of the State Agriculture Department, the rural Garo population in Boko have been using these to enhance their crop-output. Why do Garos prefer to buy these rice-seeds and not use the indigenous varieties in the wet paddy plots? The reason lies in the higher-yield of the former, and the non-luxuriant growth of the latter in the wet plots. The indigenous varieties even with the use of fertilizers have been seen to give lesser yield. In fact, due to the dwindling size of shifting fields, the final produce from these fields are much less than those from the wet fields. In fact, as mentioned earlier, the

traditional varieties of rice do not suffice a family even for a month, whereas the wet paddy produce suffices a family for months at a stretch such that 62% of the households are able to sell a part of the produce.

Market and Marketability

In the past the role of 'cash' money among Garos was negligible. Money involved in food exchange was in kind or service. Reciprocity was the usual practice. If some rice grains were given to a kin, he or she would reciprocate in the form of other food grains or at times in the form of service by helping out in the fields. This kind of distribution of food was mostly among kin members. However, non-kins in need have also been known to work in the fields of the better-off co-villagers in exchange for food.

At present, the increasing role of money and wealth is witnessed. More and more shifting plots, and in many cases the garden within the compound of a house, are being converted to plantation areas for cash crops like areca nut and betel leaf, pepper, coconut, orange and cashew nut. Again, the amount of time and energy spent in the dry plots has shifted to wet paddy cultivations. In short, Garos are seen to be beginning to focus on crops that have marketability.

At the end of every season, vendors (and in many cases big-time traders) visit the village to buy rice and other food crops. Previously villagers would sell off rice at very minimal price depending on what the vendor offered. Nowadays however villagers would prefer to go to the markets and do a survey wherein they try and find out the market price and therefore are able to bargain for a better price.

However, the biggest result of the pressures of the market is the replacement of indigenous varieties of rice with newer and non-indigenous varieties. The latter as mentioned earlier gives higher yield due to its genetically enhanced properties. This is one of the reasons why Garos of Gohalkona over the years shifted its focus from the indigenous to the non-indigenous varieties. The use of chemical fertilizers has also been an outcome of market pressures, with villagers wanting more production to sell to the traders in the weekly markets and in larger *bazal* (markets) in the nearby towns.

CONCLUSION

Many of the older rice species like *mima*, *chidare* and *chabachang* are now no longer grown in the studied village and they have been replaced by stronger and better-yielding indigenous varieties like *chasep*, *migra* and *minil* in the dry plots. The varieties grown in wet fields are new introductions, the seeds being bought from the market or the Agriculture Department at Boko, particularly hybrid species with greater yield like *lochmon*, *aijong* and *betguti*.

At present, dry cultivation where indigenous rice was grown has given way to wet cultivation where non-indigenous species are grown. Many Garos (43%) now possess only a token dry plot where some practice shifting cultivation while others prefer to keep it fallow. For a minority few, cultivation on these plots continue but on a minor scale. The rice produce from these plots, therefore, is insufficient to subsist for long even for a month or two.

This change has come about due to three reasons. Firstly, the National and State Forest policies have indirectly led to the villagers' lack of interest (and time) in working on a dry plot. Secondly, and more importantly the systematic introduction of newer varieties of rice advertised by the state government at subsidized rates. Due to the annual decrease in soil fertility, subsidized fertilizers supplied by the state were used, thereby leading to a cycle of using the soil for the same hybrid species, over and over again. Thirdly, the pressures and competition of the market led to the systematic replacement of indigenous varieties with lesser yield by the higher yielding newer varieties.

As a part of its development initiatives, the state government had no doubt tried to help the villagers overcome issues such as the dwindling fertility of the soil, lesser rice production and outbreaks of pests by introducing newer and stronger varieties of rice. This however has led to a negative impact on indigenous rice as spelled out earlier.

Despite the change in the species of rice, however, it is still the staple food of the Garos. This is a food item that is still eaten twice (or thrice) a day: they still remain "hungry" if they do not eat rice. It is still a sacred food with prestigious and wealth connotations

and one that plays a central role in their life and economy. However, due to the systematic easing out of indigenous varieties, aided by the market and hostile environment, it is likely that in the future indigenous varieties of rice might become a myth and no longer a reality.

NOTE

1. *Mon* is a corrupt form of *maund*. *Maund* is a unit of weight used in India. By the definition of the Standard Weights and Measures Act of 1956 (amended 1960, 1964) one *maund* weighs exactly 37.3242 kilograms. In the studied village, 1 *mon* referred to 30 kilograms approximately.

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