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Wet Rice Cultivation: An Ethnographic Study among the Dimasa Kacharis of Hojai District, Assam

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Abstract

The beginning of agriculture is synchronous with the dawn of human civilization and is unquestionably the largest livelihood provider in the vast rural areas of India. Agriculture in India stretches back to the Neolithic period. In agricultural communities, the value of its existence to humans is recognized via rituals and ceremonial gifts offered to please the elements of the sun, rain, and earth. Rice is the principal food crop of northeastern India, and many agricultural festivals are held throughout the year to commemorate the seasonal cycles of crops. Every group or community has rituals that are specific and unique to them. The community engaged perceives them as fulfilling a social obligation, and they are typically conducted in a holy atmosphere. The Dimasa Kachari is an Indo-Mongolian tribe native to Nagaland, Meghalaya, and Assam. They practice both shifting and wet cultivation, depending on their geographical settlement. The agricultural activities of Dimasas are primarily regulated by the seasonal cycle. This article is part of an ethnographic report on agricultural practices among the Dimasa community of Dakhin Komorakata village in Hojai district, Assam, conducted in 2018. This paper will primarily focus on wet rice cultivation and regulating agricultural practices, which are the mainstay of Dimasa's economic life.

Keywords: Dimasa, Agriculture, wet rice, Cultivation, Rituals

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Introduction

The beginning of human civilization coincides with the commencement of agriculture. It is the study or practice of farming, which includes soil cultivation for crop growth. Agriculture (agri, 'field,' and culture, 'cultivation') is an etymological term that implies the cultivation of a field, and dictionaries typically define it as the art or science of cultivating the ground. Historically, the oldest traces of agriculture may be found in Asia Minor, Mesopotamia, Egypt, Greece, Rome, China, and India. Agriculture has been practiced in India since ancient times. In early India, the Proto-Australoids and Dravidians were farmers. Soil cultivation was a distinguishing feature of the Aryans in India. They have extensive agricultural expertise. The practice of cultivation continuously progressed and reached a high level of perfection by the 4th century BC, and it continued to grow even more. (Dutta, 1986)

Most people who work in agriculture are found in the tropics and subtropics, where they make up half of the world's population. Their agricultural techniques are varied, including a range of sedentary systems such as wet rice production, fallow systems, household gardens, and shifting agriculture systems. Rice has a high calorific content and is grown extensively by small farmers in the wet tropics to provide their fundamental requirements, along with sugarcane, maise, and other maise. As demonstrated by several studies conducted by us in northeastern India and later summarized in a UNESCO-MAB volume, these traditional methods, which are based on technology evolved over many generations, are frequently energy efficient while offering substantial economic benefits to the farmer. This setting has sparked a resurgence of interest in these conventional agroecosystems. Although shifting agriculture, also known as 'jhum' locally, dominates India's northeastern hill area, other significant agroecosystem types are used by the native tribals. The production of wet rice and backyard gardens are two more land use practices in Jhum; valley agriculture is practiced in the topography of India's northeast, at both low and high elevations. It is a sedentary method of growing wet rice (Oryza sativa) and works with jhum. It is carried out on flat regions between hill slopes whenever the topography permits. However, some tribal societies may also construct little terraces all around the flat valley area, reaching into the foothill slopes. As a result, rice plots are arranged in a saucer-like configuration. This cropping technique is obviously constrained by geography. The valley areas do not require additional fertilizers since the healthy soil is a result of nutrient wash-out from the hill slopes. Contrary to the jhum system, which only crops once every few years depending on the jhum cycle, the key benefit is that the land produces a consistent harvest year after year. (Ramakrishnan, 2000)

Agriculture is quite important in all of the Northeastern states. Assam receives a

lot of rain and is quite fertile, making it ideal for agriculture. Geographically, Assam is separated into two regions: the hills and the plains. The hill population conducts shifting agriculture, also known as jhum, although the state of Assam is dominated by wet-rice production (Seitinthang, 2014). Assam's climate is mainly affected by the monsoon, and the state has a moderate environment. The Dimasa Kacharis are a significant ethnic group in north-east northeast one of the largest Assamese tribal clans. Literally, the word "Dimasa" refers to the Brahmaputra's progeny or offspring, where Di signifies water, Ma means large, and Sa indicates children (Bordoloi, 1984). The Ahoms referred to members of this tribe as Timisa, which Gait (1906) believed to be an obvious mispronunciation of the name "Dimasa." The Dimasa Kachari are mostly found in Assam's Dima Hasao area (formerly known as North Cachar Hills), which is an autonomous hill district. Additionally, they live in the Cachar, Hailakandi, Hojai, Karbi Anglong, and Nagaon districts of Assam, as well as the neighborhoods around Dimapur in Nagaland. The Dimasa people are also referred to as Hasao-sa, Hawar-sa, Dembra-sa, Nagaon, Hojai, and Lanka in Assam, and Dijuwa-sa in Karbi Anglong and Dimapur in Nagaland. As a result, they speak the corresponding dialects of Hasao, Hawar, Dembra, and Dijuwa (Thaosen, 2019). The Dimasas of Assam, like most of the hill tribes of north-east India, use shifting farming known as 'Jhuming' with some of them doing wet-rice cultivation in the low-lying regions. The Maibong region, which is located on the Mahur River's bank, generates paddy from wet-rice production. The term 'Maibang' (Maibong) has its own meaning. Mai means paddy or rice in Dimasa, and Bang means abundance; therefore, this is a platter with plenty of paddy or rice (Barpujari, 1997). Their subsistence economy, culture, history, and religious heritage are all derived from the land and environment. Without the land and environment, these aspects of their existence would be meaningless and without worth. It is therefore accurate to describe their religious system as natural religion (Bordoloi, 1984; Endle, 1911). Wetland farming is also practiced in some areas, subject to the availability of land with enough water supply.

The primary activity and main source of income for the Dimasa Kacharis is agriculture. Shifting agriculture, often known as slash and burn, is practiced by the Dimasa people who live in the North Eastern Hills (NEH). In this type of farming, individual plots of land are briefly farmed before being left fallow and allowed to restore their original vegetation while the cultivators move on to another. When the soil begins to show indications of tiredness or, more frequently, when the field progressively loses its fertility and becomes overtaken by weeds, the time of cultivation is typically discontinued. The time a field is farmed is often less than the time it is left fallow to allow the land to rejuvenate. They also grow wet rice, depending on the availability of low-lying land. (Sarma, 2003) Rice cultivation is a way of life and a cultural practice

for the people of the NEH Region, regardless of whether it is profitable or not. It is done under various rice growing conditions in NEH states, from low-lying lake areas to sloppy land of high hills, during various rice growing seasons by using their traditional indigenous rice growing techniques. Up to 2000 meters above sea level, rice is produced in Arunachal Pradesh. Both mountainous and plain regions may be found in Assam, and rice is grown in both. Local rice varieties are grown in both the highland and lowland regions of Manipur. Soft kinds are grown and used in Meghalaya in both flaked and raw forms. Rice is exclusively grown in the valleys and lowland regions of Mizoram. In the state of Nagaland, where more than 400 accessions of rice germplasm have been gathered, rice is also a primary food source. In Tripura, rice is grown in flat valleys, hills, and hillocks. A mountainous region in the Himalayas in Sikkim is where rice is farmed every year (Roy et al., 2015).

Study Area

This study attempts to understand the totality of wet rice cultivation practiced by the Dimasa Kacharis. The present study was conducted at the village of Dakhin Komorakata, situated in the Hojai district of Assam.

Methodology

The paper attempts an in-depth study of the wet rice cultivation of the Dimasa Kacharis. The methods mainly used for primary data collection were interviews, case studies, and observation. The study area is homogenous in nature, inhabiting only the Dimasa Kachari population. The primary data were collected mainly from the elderly people of the community, as they have proper knowledge regarding the various agricultural practices and association rituals and traditions. This article is part of anthropological research conducted in 2018 on the topic of agricultural practices among the Dimasa people in Dakhin Komorakata village in Hojai district of Assam. However, no structured questionnaire was used during data collection. Secondary sources such as books, journals, articles, magazines, etc. were also referred to for data collection.

Findings

Hojai district, sometimes referred to as a "miniature India," presents a mosaic of ethnic, linguistic, and religious groupings. Presently living there are Bengalis, Muslims, Assamese, Dimasas, Karbis, Manipuris, Hindi speakers, and former employees of tea gardens. The Bodo-Kacharis or the Bodo-Dimasas once ruled over Hojai under the

Ahom reign. In actuality, the term "Hojai" has Dimasa roots. The 'Dimasas' priest is referred to as "Hoja" or "Hojaisa," and the area where they lived became known as Hojai. Even today, the Hojai region is home to a sizable Dimasa community, some of whom bear the surname "Hojai." Hojai, once known as the "Rice Bowl" of Assam, is preeminently an agricultural region. In recent years, it has drawn notice because of its amazing agarwood processing and export of agar products to other nations, particularly those in the Gulf (Govt. of Assam, n. d.; Nandy, 2013). Their primary export is rice, which they grow for consumption and rice-beer preparation. The Dimasas of Dakhin Komorakata village practice Sali, Ahu, and Boro paddy all around the year. The agricultural activities of the Dimasas are largely regulated by the seasonal cycle. The cultivation of paddy and other agrarian activities are mostly undertaken in the rainy season. Kharif and Rabi are the two cropping patterns that are adopted in India. The cropping season of kharif crops starts with the onset of the monsoon and ends when the rainy season is over. On the other hand, Rabi crops are grown in winter, i.e., sown when the monsoon ends and harvested before the advent of the summer season. Kharif crops require a hot and wet climate, whereas a cold and dry climate is best suited for Rabi crops. Rainfall plays a significant role in the yield of the two types of crops, in the sense that rain is good for kharif crops while the same may spoil the yield of Rabi crops. (Raturay, 2011)

Sali (winter rice)

Sali is regarded as the main crop throughout the winter months. It is transplanted in lowlands and grown there during the months of July and August, when it rains, and harvested during November and December. The field is puddled, and there is standing water when the transplant is done. Seedlings are cultivated in fields with plenty of manure. Depending on the kind of soil, the labor force, and the activity of the cattle, the field is either ploughed or ponded prior to transplanting. With a bamboo ladder or leveler, the field is crushed after being ploughed. The previously produced seedlings are then placed on the field with standing water in bunches. The farmers apply the available number of fertilizers one and a half months after the transplantation is finished (Baishya, 2009).

Ahu (autumn rice)

Autumn is the suitable season for growing Ahu. Weeding becomes necessary for the dissemination of Ahu paddy. Ahu transplants are produced in areas with irrigation. Seeds are properly sown during the months of March and April, and after four to five

weeks, when seedlings have emerged, they are moved onto muddy fields. In June and July, it is harvested. Ahu paddy, which can only be cultivated on specific sorts of terrain, comes after the Sali. (Rauteray, 2011)

Boro (summer rice)

Boro is cultivated during the Rabi season, which occurs between December and January. It is grown on swampy ground. Since boro is typically thought of as a crop for the summer, it needs irrigation in a sufficient and timely manner (Lal et al., 2013). For Boro, seeds are grown in November and December before seedlings are transplanted in well-watered areas in December and January. Boro rice is commonly grown in the Goalpara and Nagaon districts of the Brahmaputra valley and is harvested in April and May. In the lower parts of the valley, sali and boro are also widely cultivated.

The different types of Sali paddy grown in Dakhin Komorakata are Ranjit, Goya, Bahadur, Maiju or Bora (kumolbora, gondho bora, and ronga bora), Joha (kulkulnijoha and kolajoha), Pankaj, Satyoki, and Aaijung; Swarna Goya; Muchuri Goya; Bhuk Dhon; and Swarna Sub-1.

Primary factors in an agricultural cycle:

The cultivation of paddy includes immense care, from soil testing and manuring to irrigation and protection of crops from diseases and pests (Baishya, 2009). Depending on different parameters, farmers decide which crop to cultivate at what time of the year, and the elaborate process required for farming includes:

a) *Collection and Preservation of Seeds:* The farmers reserve a portion of the good quality of the different varieties of rice they produce after harvesting from their previous cultivation. They dry the grains in the sun and preserve them in a place free from the attacks of rain, wind, rats, insects, etc.
b) *Preparation and application of manure:* Plants cannot grow or produce fruit without manure. In addition to boosting soil fertility, it minimizes water loss due to natural evaporation and shields plant surface roots from the sweltering sun. Manure is important since it is a source of nitrogen, phosphates, and potash. Farmers employ two types of nature: one that is processed and purchased from the market, and one that is unprocessed and prepared at home. The ones prepared by the growers themselves include cow manure, ashes from burning tree and shrub leftovers, and a powder made from dried banana plant stems. These provide the soil with ample nitrogen and minerals, producing a bountiful harvest.
c) *Preparation of the field for sowing and transplantation:* Finding a suitable plot

in accordance with the kind of agriculture is the first and most important step in preparing an agricultural field. The transplanting of rice seedlings is done on a field that is puddled and has standing water. Depending on the kind of soil, the amount of labor, and the amount of cattle energy available, the field is ploughed and puddled as many times as necessary before transplanting. The land is pulverized with a leveler (harrow) after plowing. A pair of oxen, a plough, and a yoke are used to plough the ground. The bullock's neck is yoked, and the long handle of the plough is fastened to it. The iron blade attached to the end of the plough rotates over the top layer of soil as the oxen pair travels, delivering fresh nutrients to the surface and burying the requirements and remnants of past crops to promote their decomposition. The manipulator, on the other end, controls the upper portion of the plough while moving with the bullock to keep the operation balanced. The leveler is used to pulverize or level the ground. The pair of oxen that replace the plough share are fastened to the rope that ties the leveller to the yoke. While the operator stands on the leveler to put weight on it and break up the soil clods, the pair of moving oxen pull it, turning it into fine soil. However, those who have significant plots of arable land use tractors, power tillers, and mechanical pulling tools. They take less time to complete. The moving machine is owned by some residents of the community, while others rent it. The surgery requires a lot of labor and is primarily carried out by women. The guys carry the seeds to the soggy fields. These seedlings are developed from grains that were distributed during a prior cultivation and then conserved. The next day, the grains are dispersed after spending the previous night in water. These seeds are grown in heavily fertilized, tilled areas. After four to five weeks, when the seedlings have grown, they are placed in the soggy fields. Fields are divided by furrows to mark the boundaries and keep the water stagnant. The sowing or transplantation of seedlings is carried out at an auspicious moment with a special ritual known as Mai Taizungba. This is done individually by every household in their respective fields.

d) *Nursing of the crops:* One of the most crucial agricultural processes is nursing. Nursing needs to be properly attended to in order to provide a decent yield. It entails tasks including crop protection, irrigation, manuring, weeding, and hoeing. After the seeds are sown, the growth of weeds and other harmful shrubs and wild grasses also occurs at the same time, affecting grain development and lowering crop yields. These need to be eradicated from the ground up. Hoeing is the loosening of the soil surface, which helps to retain soil moisture by reducing the amount that evaporates from the surface, inhibits the development of weeds, ruins ground vermin's lairs, and leaves them vulnerable to bird predation. The farmers have the right tools for any task. The residents perform a ritual called

Langkhalang Madai Huba in the Dimasa month Jehthi (May and June) in order to pray for protection of newly grown seedlings from pests and other diseases. After sowing, it is believed that the farmer must remain attentive at all times to shoo away animals that may harm the delicate rice plants. Agriculture's lifeblood might be referred to as irrigation. For crops to develop, artificial irrigation is a crucial way to make up for rainfall shortages. In between the fields, little water bodies are typically excavated. Apart from the machines that are used to pull water from Jugi Nala, a canal that runs through the middle of the village, The use of power pump irrigation is becoming popular as it could supply water from the water pools in between fields and the running canal to the agricultural fields. Diesel engines operate these machines and are taken on rent from the stores. The cultivators have to be very alert at the time of the crops ripening against depredations. The locals perform Lakhi Madai Pauba in both their houses and fields, seeking better crop growth and protection from the onslaughts of birds, rats (mojo), monkeys (makhusa), locusts, and other animals. Timely visits are made by the cultivators to their respective fields for attacks by elephants (miyung), and the villagers use crackers to scare them away. The elephants (miyung) visit twice or three times a season and have their share from a particular side; they usually do not disturb the other growing crops. The farmers do not take any action against the elephants until they further damage the crops. Since every household in the village rears cattle and goats, they prove to be constant threats during the ripening season. To scare away monkeys (makhusa), birds, and cattle stock (mohsu), tree houses are set up in between the fields, and a person sits over to keep a watch over the paddy.

e) *Reaping, threshing and winnowing:* When the crops gradually ripen, according to their respective times, a ritual is performed to mark the beginning of the harvesting season. This ritual is known as Mai Dusi Laba, wishing for a bumper harvest. After the performance of this custom, the cultivators can begin reaping on any Monday or Thursday, although they restrict themselves from doing it on the day of Amavasya or no moon night. Reaping is done on a cooperative basis by the family members and hired laborers. The reapers cut down the paddy with a sickle, which they called Sungkhai in their local term. It is done by both male and female people. The reaped paddy stalks are bundled up and brought, with the help of Penglap, to the threshing floors, where they are stacked for a few days. This activity is restricted to male members only. Cleaning and threshing are done by both males and females. Bullocks are used to walk over the spread paddy stalks on the threshing floor. The stampede of their feet makes the grains fall off their stalks. This is also done by using a power-tiller. The process of having the crop trodden over by the bullocks is done many times before it is shifted to winnowing. Winnowing is

mostly done by women. Two implements named Maizai and Sangkhon are used to complete the process. It's the simplest formwhich involves the method of sieving with the help of Maizai and an implement made of thin bamboo strips with holes in them in the form of a sieve but much larger in size. This helps in separating the straw from the grains. The grains and the husk fall off, and the straw remains back in the The grains are then shifted to Sangkhon, a bamboo installation popularly known as winnowing fans. It involves throwing the mixture into the air so that the wind blows away the lighter chaff while the heavier grains fall back down for recovery. This process is repeated many times before drying the grains in the sun. The grains are dried in the sun for a few days and taken to the nearby rice mill on the outskirts of the village.

f) *Storing:* After drying the grains in the sun and dividing the needed amount for eating, the remainder is carefully kept in granaries known as Maikho (Plate. 1), a separate storeroom for threshed grain erected outside the main dwelling. These are raised above ground to keep mice, vermin, and other animals out. The granary is built at such a height that it is unaffected by floods or other forms of waterlogging. These bamboo-poled storehouses have a hardwood floor and tightly interlaced bamboo walls.

a) Traditional agricultural implements:

i) *Langan-Jungali (Plough and Yoke):* This is the most important implement that has been used since the dawn of civilization for breaking up the earth prior to sowing so as to improve the physical condition of the soil for the healthy growth of crops (Dutta, 1986). Thelangan is used as a local term for the plough, and the yoke is known as Jungali. It consists of a wooden piece, ideally shaped for fitting the plough, made of iron. Normally, a Langan is drawn by a pair of oxen that are attached to a horizontal beam, i.e., the yoke or jungali in their local term, fixed on one end of a wooden beam, the other end of which is fixed to the plough for balanced operation of ploughing. (Plate. 2)

ii) *Moi (Harrow):* Moi can be described as a leveler in the shape of a bamboo ladder, which is driven by bullocks. It is used for leveling and breaking the clods of soil after plowing (Baishya, 2009). The installation is rectangular in shape, and both sides are held together by fitting cut pieces of bamboo in 3–5 places. The moi is tied to the yoke with a rope that is attached to a pair of oxen. The pair of moving oxen pulls the leveler while the operator stands on it to put weight on it, and it breaks away the clods of earth into fine soil. (plate. 3)

iii) *Japi (cane hat):* Japi is used as an accessory to wear on the head by the people who work on fields to protect themselves during the daylong work and exposure to sunshine and rain. It is composed of closely knit cane sticks bundled together with clusters of palm leaves. The size is large and features a hat, which bears structural and designer properties. The sticks are placed at a particular angle, forming a round shape with a cone at the top. (plate. 4)

iv) *Penglap (Bamboo Pole):* The implement resembles a wooden pole, made on a solid piece of bamboo. It is long and finely structured with pointed ends. The manipulator balances the bamboo pole on his shoulders and carries the bundles of paddy stacked together on both pointed ends. The carrying activity is exclusively done by the males. (plate. 5)

v) *Sungkhai (Sickle):* Sungkhai is popularly known as kaci in all of Assam. The blade of the sickle is crescent-shaped with denticulation on the concave side, and the handle is cylindrical in shape. The manipulator holds the handle with one hand and the part that is to be cut down, be it paddy, grass, weed, or so, with the other hand, and cuts off the desired part with the denticulate blade. (plate. 6)

vi) *Khongkhai (Separator):* Khongkhai, also known as ookhon, is made on a single piece of long bamboo with a pointed beak on the top. This implement is used for shuffling hay during threshing and other times. The craftsman selects a variety of bamboo to make this fine installation with the utmost care. (plate. 7)

vii) *Roina (spreader):* Roina is used at the end of the harvesting season for spreading the grains out in the sun for drying and accumulating them later. The implement is made up of a flat, broad piece of wood with a sloping edge at the working edge and a long handle of bamboo. The manipulator holds the long bamboo handle and pushes or pulls the grains with the help of the attached plank of wood. (plate. 8)

b) Gender roles and division of labour

In the Brahmaputra valley in Assam, significant gender differences in farming chores have been noted. Women are assigned specific tasks in agriculture such as irrigation, fertilizer application, seed sowing, transplanting, weeding, harvesting, and post-harvest activities, while men are also required to perform tasks like land preparation, plowing, and pesticide spraying in addition to attending these activities. While women do 80% of the transplanting and harvesting, they have no involvement in applying pesticides or preparing the ground. The labor contribution of women is between 10 and 30 percent for other jobs. This particularity remains the same and applies to farms of all sizes.

However, other tribes also exhibit less obvious gender differentiation in the farming chores given to either men or women (Saikia, 2004). Self-sufficiency in labor supply is the characteristic feature of every Dimasa village. As the family is the principal productive unit, it is also the sole source for labor supply. No kingroup, in general, extends help in agrarian activities across the family. All the members of a particular family, both male and female, execute various agricultural operations themselves. Families with no adult male members, however, engage labor for such work as it is too strenuous to be performed by women. The workers are paid in cash or on a clear understanding of the reciprocal exchange of labor. However, owners of large units of cultivable land go for share cropping as they are incapable of following the agricultural pursuit independently. Most of the jobs in agriculture are shared by members of either sex. Women are equally involved in the activities. However, some of the works are exclusively limited to men only. Plowing, pulverizing of the agricultural fields, nursing and manuring of crops, carrying the produce from the fields to the threshing floors, and threshing of grains are bound to the male members. The typical work of females in the process of cultivation is limited to less skilled jobs, such as sowing, transplanting, weeding, reaping, winnowing, and all the rites and rituals related to agriculture that often fit well within the framework of domestic life and child rearing. Although these jobs are not restricted to women only,they are shared by both genders. (plate. 9)

Share-cropping and its prospects

Sharecropping is an important, long-standing agrarian phenomenon in Assam. It serves as a supplement to income and employment for both the group of farmers who sharecrop on other people's land and those who rent out their land for sharecropping with other farmers (Saikia et al., 2014). Sharecropping is present among the cultivators in the study area. Typically,the land owners make an unwritten agreement with the sharecroppers specifying to cover the expenses of seed, fertilizer, weed control, irrigation, and fuel for the machinery. Sometimes the sharecroppers cover those costs by themselves, but they expect a larger share of the crop in return. Sharecroppers usually use their own equipment to fulfill their activities. In times of calamities, both the landowner and the sharecropper divide the loss amount equally. Sharecropping is preferred by those farmers who find it difficult to cover up all the units of cultivable land alone and by those who are involved in other services apart from the agricultural economy. The landowner can change their share croppers if they are not satisfied with the production on their land or for other purposes. They do not lease the land for a long period of time. (plate. 10)

Agriculture and the spiritual cycle

Agriculture is more than just soils and crops, or rain and irrigation, or seeds and fertilisers. It does, however, encompass the entire intricate interplay between man's behaviour, activities, organisations, institutions, and nature (Dutta, 1986). Dimasa Kachari tribe has a unique social environment. This social environment has its own culture, tradition, religious beliefs, and behaviors that are connected to the place people live and the natural world. Their subsistence economy, culture, history, and religious heritages are all derived from the land and environment. Without the land and environment, these aspects of their existence would be meaningless and without worth(Chatry, 2001). The people celebrate agricultural festivals as a form of gratitude towards their madai (deities) and to invoke them to bless the whole creation. The Dimasas of Dakhin Komorakata, Hojai, perform some rituals in connection with different types of agricultural operations, and these are done for the protection of crops from evil spirits, evil eyes, insects, etc., as well as bumper crops. This cycle starts with the first plough of the Dimasa calendar year, in the months of April and May. In the morning of any ritual to be performed on that very day, every member of the household takes a bath, wears clean clothes, and prepares themselves for the ceremony. Usually, the lady of the house takes initiative by feasting, which is observed until the end of the ritual. Prior to it, the entire house and the courtyard are cleaned, and the arrangements of different articles required for the fulfillment of the purpose are brought and kept ready. Like the first plough of the year and the broadcast of seeds, the Dimasas also perform some rituals just before the transplantation of paddy seedings. This process of performing various rituals continues among the villagers until the cultivated rice is harvested accordingly.

Rituals associated with cultivation:

a) *Kusum Madai Puja or Haa Pogobara:* This puja is done at the end of the Assamese month of Bohag (April–May) if there is no rainfall or in the drought season. This ritual includes a day-long process, and it is performed at Langlai Daikho, situated within the village. Before performing the activities associated with this ritual, every villager drinks a small amount of holy water called Shanti Pani (sanctifiedkho, where the worship of the ancestral spirits is done. There, the Tenga and Zaunthai, persons who practices sacrificial actions and priesthood respectively takes out the swords that remains locked up in the chambers of The Tenga and Zaunthai, then wash the weapons and swords, specifically the one called Sheng, a large knife used for animal sacrifice. It is normally wedge-shaped,

with its top end flat and blunt. Its end sometimes contains a carving depicting an eye or other symbols, and its handle is made of wood with the pure water of Shanti Pani. According to them, these weapons and swords have been there since their origin and have been well protected. The title Tenga is a hierarchical one, and only persons from a particular Shengphong (male clan) can take up this title, which is continued to be taken by his successors. The villagers claim that till date, whenever they performed the ritual, there was rainfall in every instance, even for a short while, which restored their belief in it. Apart from agriculture-related activities, they even perform this ritual to maintain peace in the village during times of crisis, epidemics, and so on. (plate. 11; 12; 13)

b) *Langkhlang Madai Huba:* This ritual is performed in the Dimasa month of Jehthi (May–June). This is done in order to pray that the newly grown seedlings are not attacked by the pests. On this day, the entire house is cleaned, and the family members consume only vegetarian food items. They require a black bull's urine, particularly the one that it excretes shortly after daybreak, for this rite. It is considered sacred, and the family members are given a few drops for consumption, which they say are bitter. This worship is offered to Goddess Kali, whom they call Maa Phertimaa and consider to be the owner of all cultivable lands.

c) *Mai Taizungba:* This ritual takes place as the plowing and leveling of fields are over. They perform the ritual by placing incense sticks, earthen lamps, and green grass in a banana leaf in the name of Goddess Lakshmi. The women carry the leaf to the field, keeping her prayer secret between her and the goddess, and walk towards the field, which they call Jatra. A banana plant is planted in the field, although this planting is considered to be an optional one. They also plant a turmeric and colocasia plant in the field, as they both grow underground; they believe that paddy will also grow in surplus. After completing the ritual, they start planting the seedlings.

d) *Lakhi Madai Pauba:* The people of the Dakhin Komorakata village do not celebrate Kati Bihu; instead, they observe Lakshmi Puja, where every household lights earthen lamps both in their houses and fields. They consume vegetarian food items, clean their house, and coat the floors with new mud slips. The villagers believe that her arrival and presence in the home usher in good fortune and blessings for their family. These rituals convey the role of Goddess Lakshmi in the success of rice production as well as the continued well-being of the Dimasa populace.

e) *Mai Dusi Laba:* As the paddy ripens and it's time for harvesting, the people observe the Mai Dusi Laba ritual before reaping grains. The ladies take charge

of observing it. They take newly woven cloth (gamusa) along with a banana leaf, which contains flowers and basil leaves, and head their way to their respective agricultural fields without uttering a word or speaking to anyone on their way. Reaching the fields, they pluck a handful of ripe paddy stalks, wrap them in the woven cloth, and carry them on their heads. They continue to keep Mom on their way back home too. On reaching their granary, they act as dead tired, as if the grains were too heavy to carry. The other way around, this means that the harvesting will be good. This ritual is observed during the reaping season. After observing this particular custom, they take any Monday or Thursday to reap the grains. However, they do not reap on 'amavasya' or new moon night. This is done for Goddess Lakshmi.

f) *Maigedeng Jiba:* Observance of this ceremony marks the end of the harvesting season. They perform ancestral worship and organize a feast. Unlike the traditional Assamese society, where the same ritual is solemnized in the month of Magh, the Dimasas do it in the month of Push. This is observed individually by every household and invites the villagers to the feast. They offer fruits and a small amount of their harvest in the name of Goddess Lakshmi. The worship of the ancestors is performed before the meal, with the belief that none of the guests suffer from stomach upset after consuming the food. At first, the guests, along with the male members of the host family, eat. The other members follow up next.

Conclusion

Agriculture is one of the basic sources of human life, supporting food, nutrients,etc. for their daily needs and being the backbone of the Indian economy. As the population and the living standards of the people are increasing, agriculture, which happens to be the major economic backbone in Dimasa society, is making a shift with time. It is not only meeting the demand for food grains but also other development needs. Another sophisticated tribal indigenous knowledge system is the creation of domestic alcohol, for which rice is the primary ingredient. It also plays a significant part in their sociocultural life because it is connected to various events, including celebrations, rituals, festivals, weddings, and even funerals. From the moment of birth until death, "Ju," or rice beer, is an essential and important element of Dimasa life. Ju is mostly made from sticky rice. It has long been regarded as having several therapeutic benefits and ethnomedical significance. The traditional people are frequently stereotyped by contemporary people as being uneducated, barbaric, and uncultured. However, because they are constantly in contact with nature, these people are better knowledgeable about it than modern, so-called civilized people. They understand the importance of

nature in human life and that the Supreme Being, or Madai, is the rightful owner of it. (Chatry, 2001) A collection of ceremonial performances that direct the various stages of agricultural activity evolved as a result of an interplay between environmental and cultural concepts, leading to a distinct kind of reasoning and worldview that has been born as a result. The farmers use this approach as a measure of control in their customary rice-production process because they believe in it. Thus, it may be claimed that a tradition that has been observed for centuries was developed as a result of a confluence of myth, cultural concepts, rituals, and agricultural activities (Samaddar, 2006). These are land preparation rituals, transplantation rituals, post-transplantation rituals, harvesting, and post-harvesting rituals.

The entire community frequently takes part in the celebration, symbolizing a common sense of significance and a shared ambition. These ritualistic actions are thoroughly codified, born in specific settings, and timed to coincide with seasonal changes. They bear the weight of symbolic action and are separate from daily action. With the growing demand, production for domestic consumption has been upgraded to produce commercial crops. Apart from the cultivation of rice grains, horticultural items are taken for commercial supply on a large scale. In modern times, powered machinery has replaced many farm jobs formerly carried out by manual labor and traditional plowing techniques driven by draft animals. This change in mechanized agriculture has taken place in less than a decade. The ongoing integration of machines has allowed farming to become much less labor-intensive and less time-consuming in comparison with the traditional use of implements. Besides improving production efficiency, mechanization has encouraged large-scale production and improved the quality of farm produce in the Hojai district of Assam.

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Plate. 1. Maikho (Granary)

Plate. 2. Langan-Jungali (Plough and Yoke)

Plate. 3. Moi (Harrow)

Plate. 4. Japi (Cane hat)

Plate. 5. Penglap (Bamboo Pole)

Plate. 6. Sungkhai (Sickle)

Plate. 7. Khongkhai (Separator)

Plate. 8. Khongkhai (Separator)

Plate. 9. In frame Shrimati Lilawati (respondent)

Plate. 10. In frame Shri Pineshwar Hakhmousa (share-croppert)

Plate. 11. Kusum Madai Puja or Haa Pogobara. Courtesy Shri Dipon Hasamphura

Plate. 12. Kusum Madai Puja or Haa Pogobara. Courtesy Shri Dipon Hasamphura

Plate. 13. Kusum Madai Puja or Haa Pogobara. Courtesy Shri Dipon Hasamphura