

TITLE OF THE STUDY:

***MATERIAL CULTURE OF THE BOROS:
WITH SPECIAL REFERENCE TO CULTIVATION***

Declaration

I hereby declare that my dissertation entitled “Material Culture of the Boros with Special Reference to Cultivation” has been completed under the supervision of Dr. Indira Boro, Associate Professor, Department of Bodo, Bodoland University, Kokrajhar. The work is original and no part of it has been submitted for any degree of this or any other University.

Place: Karigaon

(Sibisan Narzary)

Date: 26th June, 2019

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CERTIFICATE

This is to certify that the Dissertation entitled “Material Culture of the Boros: With Special Reference to Cultivation” submitted by Sibisan Narzary for the award of the Degree of Master of Philosophy in the Department of the Bodo, Bodoland University, Kokrajhar, Assam is a bonafide record of the research work carried out by him under my guidance in the Department of Bodo, Bodoland University, Kokrajhar.

The dissertation satisfies the requirements of the regulation relating to the degree. Also, considerable parts of the dissertation are published in International and National Journals. The work reported in the dissertation is original and has not been submitted in any other university or institute for the award of any degree or diploma.

Dated, Bodoland University

(Dr. Indira Boro)

The 26th June, 2019

Supervisor

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Date: 26th June, 2019

ABSTRACT

The Boro community is one of the largest Scheduled Tribe (ST) in north-east India and they are the aboriginal people of Assam. The Boro people inhabiting under the great Mongolian have recognized under different names in different places, i.e. Kiratas, Mache (Mech), Kocharis, Bodo or Boro and as a linguistic community the Boros are belonging to the Tibeto-Burman sub-language family. At present they have scattered all over Assam and also in the neighbouring states like Nagaland, Arunachal Pradesh, West Bengal, Tripura, Meghalaya, etc. They also live in the neighbouring countries such as Nepal, Bangladesh and Bhutan. However, the majority of them are found in the northern bank of the Brahmaputra valley. They have their own culture, language, and religion since time immemorial.

The Boros are generally cultivators. Their livelihood depends on cultivation, farming, hunting etc. They cultivate different crops in different seasons such as – *Mai* (Rice), *Sibing* (Sesame), *Sobai* (Pules), *Besor* (Mustard), *Guji* (Linseed), *Phathw* (Jute), *Khuser* (Sugar cane) and vegetables gourd family – *Lao* (Sweet gourd), *Phwrla* (Sponge gourd), *Khumbra* (Cucumber), *Jwgwnar* (Pumpkin) and also *Lai*, *Lapha*, *Dundiya* (Coriander) etc. And they cultivate many kinds of crops as they required related to season in their daily life.

The present study titled “Material Culture of The Boros: With Special Reference to Cultivation” is a study on such matters: the Boro people cultivate those crops by using their own traditional tools, i.e. *Nangal* (Plough), *Jungal*

(Yoke), *Laothi* (Stick), *Mwi* (Harrow), *Beda* (Rake), *Khodal* (Hoe), *Hasini* (Small rake), *Sikha Gobda*, *Sikha Khongkhai* (Common Cutting instrument), *Khada* (Basket), etc. They use different kinds of tools for the purpose of different cultivations. The Boros are very rich in material culture. The material culture of Boro plays a very important role in their life. They use a variety of tools as per their requirement and make those tools at home by themselves from natural resources. They make their agricultural tools generally from bamboo, wood and iron. With these tools they cultivate the crops from time immemorial.

But at present, the used of traditional tools are decreasing due to the influence of technological devices and tools. Technological devices are influencing on traditional agricultural tools also, for which the uses of traditional tools are decreasing day by day. The using of traditional tools is a part of the culture. If it is to be preserved traditional culture then one must keep alive the traditional agricultural tools.

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CHAPTER – 1

INTRODUCTION

1.1 Boro Community:

The Boro community is one of the largest Scheduled Tribe (ST) in north-east India and they are the aboriginal people of Assam. The Boro people inhabiting under the great Mongolian have recognized under different names in different places, i.e. Kiratas, Mache (Mech), Kocharis, Bodo or Boro and as a linguistic community the Boros are belonging to the Tibeto-Burman sub-language family.

According to Rev.S. Endle, “the origin of the Kachari race is still very largely a matter of conjecture inference, in the absence of anything entitled to be regarded as authentic history. As remarked above in feature and general appearance they approximate very closely to the Mongolian type; and this would seem to point to Tibet and China as the original home of the race”¹.

According to R.M. Nath, “the Bodos are a race of the Mongolian people who are described to be the inhabitants of a country north of the Himalayas and West of China. This land is known as *bod*. The word *bod* is supposed to mean a

¹Rev. Sidney Endle. *The Kacharis*, 2011. P. 3

homeland. It is also said that there were many parts of the country known as *Hor Bod, Kur Bod, etc*²”.

At present they have scattered all over Assam and also in the neighboring states like Nagaland, Arunachal Pradesh, West Bengal, Tripura, Meghalaya, etc. They also live in the neighboring countries such as Nepal, Bangladesh, and Bhutan. However, the majority of them are found in the northern bank of the Brahmaputra valley, Assam. They have their own culture, language, and religion since the time immemorial.

According to Kameswar Brahma, “the Bodos are numerically and sociologically one of the most important tribes of the North-eastern India, particularly Assam. While they are spread all over the plains of lower Assam and contiguous areas of North Bengal, they have intimate family ties with many other tribes living in other parts of Assam and also in Tripura. They belong to the Indo-Mongolian group of tribes who have been generally designated as Kiratas”³.

1.2 Language:

The Boro community has its own language and it is called *बोर/बड़ Boro Rao* (Boro/Bodo language). The *Boro Rao* belongs to the *Tibeto-Barman* language family. It is linguistically connected with other communities of north-east India such as – *Garo, Rabha, Dimasa, Kokborok, Lalung and Deuri*.

²R. M. Nath. *The Background of Assamese culture*, 1978. P.15

³ Kameswar Brahma. *A Study of Socio-Religious Beliefs, Practices and Ceremonies of the Bodos*, 2015. P. 3

About the origin of the Boro language, Kameswar Brahma says, “Linguistically the Bodos include a large group of people who are the speakers of the Tibeto-Burman speeches of the North and East Bengal, Assam and Burma. They are the *Bodos* or *Boros* of the Brahmaputra valley, *Meches* of lower Assam and West Bengal, *Rabhas*, *Garos*, *Dimasas* and *Kacharis* of Cachar district, *Tipras*, *Lalungs*, *Sonowals*, *Hajongs*, *Mishings*, *Deuris*, *Chutias*, etc”⁴.

Again he says that, “The Boro speaking area of Assam at present are stretching from Dhubri in the west to Sadiya in the East. In Tripura and Nagaland also we have small number of the Boros or Boro Kacharis. In Jalpaiguri and other adjacent districts of, The Boros are known as *Mech*. The Boro language of Assam has at least four clear-cut dialect areas with a sufficient number of dialectal variations; these may be called north-western, south –western, north-central and southern dialect areas with phonological, morphological and glossarial differences”⁵.

The *Boro Rao* (Boro Language) is growing in different aspects. Presently, it is written in Devanagari script and it is the official language of the Bodoland Territorial Area Districts (BTAD). Notably, it is also one of the official language the Indian state of Assam. In 1963 Boro language was introduced as the medium of instruction in the primary schools in the dominated area of the Boros and in M.E. & high school introduced as a medium of instruction in the year of 1968. As

⁴ Kameswar Brahma. 2015. P. 12

⁵ Ibid. P. 1

well as under the Gauhati University and North East Hill University was introduced, as M.I.L. subject in 1978 and Dibrugarh University also introduced as MIL subject in 1995. At present, the Boro is in MA course under Gauhati University (introduced in 1996), Bodoland University since 2009, Dibrugarh University (introduced in 2016) and Cotton University (introduced in 2018). Besides, Boro language is also offered as MIL, Elective and Honours in Bachelor Course.

According to government employees' census report, 2009 among the total number 14325 of employees there are 12128 employees are Boro speakers⁶. The Bodo Sahitya Sabha (BSS), the Central Institute of Indian Language (CIIL), National Translation Mission, Ministry of Human Resource Development (MHRD), Government of India and many other organizations are working to develop the Boro language.

1.3 Culture:

The Boro community has its own culture. They live in the midst of nature and their living system is base on natural resources. They produce foods from nature by cultivating crops, hunting, fishing, farming etc. Their main food is rice along with rice they eat meat *Oma Bedor* (Pork), *Napham*, *Onla wngkhri*, *Narji wngkhri* and also they drink *Jwo* or *Jumai* (Rice Beer). The Boro people are made their own clothes in their traditional *Isansali* (Handloom). The traditional religion of the Boro community is *Bathou*. It is worshipped by the Boro people from time

⁶Statistical hand book of Bodoland Territorial Council, B.T.C. (Assam), 2016-17. p. 164

immemorial and the *Kherai* is a greatest religion festival of them. But now a days the Boro people is worship other religions also like *Brahma dharma*, *Christianity* etc.

According to Wikipedia, “Bodo culture is the culture of the Bodo people in Assam. For long, Bodos have been farmers living in an agriculturist community with a strong tradition of fishery, poultry, and piggery, with rice and jute cultivation, and betel nut plantation. They make their own clothing from scratch, such as traditional attires. In recent decades, Bodos are influenced by recent social reforms under Bodo Brahma Dharma and the spread of Christianity”⁷.

The *Bwisagu*⁸, *Domasi*⁹, and *Amthisua*¹⁰ have traditionally celebrated the festival of the Boro people. The traditional dresses of the Boros are *Gamsa* (for male), *Dokhona* (for female) *Jwmbaigra* (for female) and as a general user, they used *Aronai*, *Sima* and *Ji ul*.

The Boro community has its own dance form and music too. There are different traditional dance forms such as *Bagurumba*, *Daoshri Delai*,

⁷https://en.wikipedia.org/wiki/Bodo_culture

⁸*Bwisagu* which is the traditional festival of the Boro society is also known as a *Bihu* in Assamese. It is celebrated at the beginning of the Bengali Calendar i.e. Bwisag. In this festival, people enjoy eating of *Gwkha-Gwkhwi* (bitter and sour) wild vegetables and *Mwswu Thukhwinai* (bathing of cattle) on the day of Sankranti (a day before New Year). And on the day of New Year, people also worship the god, goddesses and ancestors.

⁹*Domasi* is celebrated after harvesting the seasonal crops in the month of Magh according to Bengali Calendar. In this festival, Boro people prepare some traditional food items such as – sithao, phitha etc.

¹⁰*Amthisua* is celebrated by Boro people before the cultivation of seasonal crops in the Aashar month of Bengali Calendar. Especially, in this festival Boro people consume fruits such as – mango, jackfruit etc.

Mwsaglangnai, Bardwi Sikhla, Dahal-Thungri Sibnai, Sikhri-Sikhla, Sa-Gwlaio, Khophri-Sibnai and among these dance *Bagurumba* is the main dance form. As a traditional musical instrument, the Boro community uses *Kham*¹¹, *Siphung*¹², *Serja, Jotha, Jabsring* and *Thorkha*.

1.4 Occupation:

The Boro People are generally cultivators. Their livelihood depends on cultivation, farming, hunting, etc. They cultivate different crops in different seasons such as – *Mai* (Rice), *Sibing* (Sesame), *Sobai* (Pules), *Besor* (Mustard), *Guji* (Linseed), *Phathw* (Jute), *Khuser* (Sugar cane) and vegetables gourd family – *Lao* (Sweet gourd), *Phwrla* (Sponge gourd), *Khumbra* (Cucumber), *Jwgwnar* (Pumpkin) and also *Lai, Lapha, Dundiya* (Coriander)¹³ etc. And they are also cultivate various kinds of crops as they required related to season in their daily life.

The Boro people cultivate those crops by using their own traditional tools, i.e. *Nangal* (Plough), *Jungal* (Yoke), *Laothi* (Stick), *Mwi* (Harrow), *Beda* (Rake), *Khodal* (Hoe), *Hasini* (Small rake), *Sikha Gobda, Shikha Khongkhai* (Common Cutting instrument), *Khada* (Basket), etc. They use various kinds of tools for the purpose of different cultivations.

¹¹*Kham*: Traditional instrument, one kind of large and long drum usually played in *kherai* and *Bwisagu* festival of the Boro.

¹²*Siphung* is known as flute but it has only five holes in traditional musical instrument of the Boros.

¹³*Lai, Lapa, Dundiya*, These three are winter vegetables, cultivated by the Boro farmers.

The Boros are very rich in material culture. The traditional material culture of Boros plays very important role in their daily life. They use a variety of tools as per their requirement and make those tools at home by themselves from natural resources. They make their agricultural tools generally from bamboo, woods, and iron. With these tools, they cultivate the crops from time immemorial.

But at present, the uses of traditional tools are decreasing due to the influence of technological devices and tools. Technological devices are influencing on traditional agricultural tools also, for which the uses of traditional tools are decreasing day by day. The using of traditional tools is a part of the culture. If it is to be preserved traditional culture then it must keep alive the traditional agricultural tools.

1.5 Present status of the Boro:

After a long struggle, the BTC Accord was signed between Bodo Liberation Tigers (BLT), and Government of India and Government of Assam on 10th February 2003. And the Boro language was also included in the Eight Schedule of the Indian Constitution in the year 2004. The Sahitya Academy arranges to confer their Literary Awards for Boro language and as one of the national language of the country; the Union Public Service Commission also has considered the Boro language as one of the option language for Civil Service Examinations since 2005¹⁴. After creating the Bodoland Territorial Council

¹⁴Bodo Writers' Academy. *A Brief Note On Bodos*, Kajolgaon, Chirang, Bodoland (Assam). November, 2016 P. 42

(BTC) there is a slight change in their livelihood. Besides, there is also an increased of an educational institution, level of social awareness, small scale industries and busyness in this area. The Boro farmers have started applying some technological tools or devices in their cultivation as well as day to day life.

1.6 Area of the study:

The study is based on the Traditional Material Culture of the Boros with special reference to Cultivation. So the area of the study is taken from the use of tools during cultivation in Bodoland Territorial Area Districts (BTAD), Assam.

1.7 Aims and Objectives of the Study:

The main aims and objectives of the study are as follows:

1. The study targeted to identify the traditional materials of the Boros.
2. To highlight their traditional agricultural tools.
3. To describe the features and structure of the agricultural tools.

1.8 Hypothesis:

The proposed study has adopted the following hypotheses.

1. The Boros are very rich in their own Traditional Agricultural Materials.
2. The Traditional Agricultural Tools are still useable by the Boro people.
3. Bamboo is the main source of the Traditional Agricultural tools of the Boros.

1.9 Significance of the study:

This is an attempt to bring out the agricultural traditional tools of the Boros. The Boro people cultivate crops by using their own home-made tools. The Boros didn't have authentic written documents on the traditional tools which are being used by them for the purpose of cultivation of various crops since the time immemorial. But the uses of traditional agricultural tools are decreasing in the Boro society due to the influence of technological devices and tools. This has been studied in this present study which has a great identity of traditional materials' value of the Boro society.

1.10 Statement of the Problem:

The research problem for the present study is entitled as '*Material culture of the Boros with special reference to cultivation*'. The Boros did not have authentic written documents in this view, but they use lots of agricultural tools. So, this is the main problem of this study, which is not study yet systematically.

1.11 Methodology:

In this present study on the *Material culture of the Boros with special reference to cultivation* it will be study by descriptive and analytical methods.

1.12 Sources of Data:

In this present study, the data has been taken from primary and secondary sources.

1.12.1 Primary Source:

The primary data and information have been collected from the Boro farmers in the Boro villages of B.T.A.D. by using different methods such as – Focus Group Discussion (FGD), Observation and Participation.

1.12.2 Secondary source:

In the study, the secondary data and information have been collected from various published and unpublished Books, Articles, Journals, Magazines, News Papers, Online books, Wikipedia and Websites etc.

1.13 Operational Definition:

There are some terms which have been used in the study:

- **Material culture:** Material culture here means the using of tools for the cultivating in the traditional way by Boro people. They use a variety of tools as per their requirement and use to make those tools at home by themselves from natural resources.
- **Boro people:** The Boro people are one of the Ethnic groups of India, which are mainly found in Assam.
- **Cultivation:** cultivation in this study mean cultivating the crop by following traditional methods which are being followed from the various ancient generations.
- **B.T.A.D.:** Bodoland Territorial Area District is a council of Assam. Created in 2003. It consists of 4 districts i.e. Kokrajhar, Chirang, Baksa

and Udalguri district. The Boro people are the main inhabitant of the region.

1.14 Review of Literature:

The review of related literature is an important aspect of any research. It helps the researcher to study the research problem in different angles. There are many writers and scholars have carried out some excellent studies on the material culture and Agricultural Tools. Among the published and unpublished thesis and books some writings of various writers are related to this study.

The related research works on material culture has done by Daniel Miller '*Material Culture: Why Some Things Matter*' (2002), this book is an ethnographic study of material culture. He found that material culture is an effective instrument for the study of social values and contradictions. '*Handbook of Material Culture*' (2006), by Christopher Tilley, Webb Keane, Susanne Kuechler, Mike Rowlands and Patrica Spyer, in this book provides a critical survey of the Theories, Concepts, Intellectuals debates, substantive domains and traditions of study characterizing the analysis of things. In '*Understanding Material Culture*' (2007), by Ian Woodward, this is the credit of research work. He has discussed the sociology, anthropology cultural studies, consumer behavior studies and design fashion studies. '*Cultural Identity of Tribes of North-East India*' (2011), by Jagadish Lal Dawar, he discussed in this book mainly about the Formation and Concept of Cultural Identity. '*Farm Tools and Equipment Or Agriculture*' (2015), by Surendra Singh, this is an attempt to put together all

relevant information regarding the availability of various tool and equipment for hand development for land development, seedbed preparation, plant protection, harvesting weeding & intercultural, horticulture and forage crops.

There are no much more writings on traditional agricultural material culture of the Boros. Besides, there are some published books in Boro where the material culture of the Boros is discussed along with other subject matters. Some related books to this study are *'Mainaw Borainai'* (2006), written by Indramalati Narzaree, the study has discussed about the material culture and also discussed the ploughing or tilling of the Boros. *'Laisini Bikayao Indramalati'* (2008), second edition by Indramalati Narzaree and Birlang Narzary, in this study they classified the material culture of the Boros. *'Boro Kocharini Somaj Arw Harimu'* (translated book) (2011), fifth edition by Bhaben Narzy, by this study he had discussed the agricultural system of the Boros. *'Material Culture of the Bodos: A Descriptive Analysis'* (2017) (Unpublished Thesis), by Gwggwm Brahma Kachary, in this study he discussed something about the agricultural material culture of the Boros. *'A Study on the Cultural Change of the Bodo Society (With Special Reference to Udalguri District of BTAD, Assam)* (2018) (unpublished Thesis), by Mayaram Basumatary, this study has analyzed about changing of cultivation process of the Boros. He discussed plough beginning *Haleo jennei*, *Khwthia khubwijennai* (Seedling), *Gosa lanai* (Stuff taking) and Tools' use etc.

CHAPTER- 2

MATERIAL CULTURE OF THE BOROS

2.1 Material Culture:

Material culture is one of the most important parts of culture. Material culture means those tangible items or things, such as tools, instruments, furniture, commodities, buildings, different kinds of apparatus, weapons, pots means of conveyance, roads and bridges, etc. Material culture is visible; it is nonverbal visual art, which are seen by us and used the things in society created by the people, which are play an important role in their everyday life.

The definition of some represented the material culture as per their own conceptions are as follows:

According to The-Editors-of-Encyclopedia-Britannica “Material culture, tools, weapons, utensils, machines, ornaments, art, buildings, monuments, written records, religious images, clothing, and any other ponder able objects produced or used by humans. If all the human beings in the world ceased to exist, nonmaterial aspects of culture would cease to exist along with them. However, examples of material culture would still be present until they disintegrated. The debate within social anthropology as to whether material culture is dominant in

moulding nonmaterial aspects is a continuing one. That the impact of material culture has varied from society to society seems clear”¹⁵.

As stated by Richard M. Dorson, “Physical folk life’ or material culture is a branch of the fields of folklore and folk life studies among the four branches. According to him ‘material culture responds to techniques, skills, recipes, and formulas transmitted across the generation and subject to the same forces of conservative tradition and individual variation as verbal art. How men and women in traditions oriented societies build their homes, makes their clothes, prepare their food, farm and fish, process the earth’s bounty, fashion their tools and implements, and design their furniture and utensils”¹⁶.

The material culture is handed down from generation to the next generation in the Society. About the starting of material culture, The-Editors-of-Encyclopaedia-Britannica said: “The first great revolution or radical change in material culture came between 14,500 and 12,000 before the present, when the shift from food collecting to food producing, the Agriculture Revolution, was well under way. About 1800 the second great change in technology, the Industrial Revolution, took place based on the harnessing of the energy of coal, oil, gas, and heat for use in methods of production. The harnessing of atomic energy marked the beginning of the third great revolution in material culture and culture as a whole”¹⁷.

¹⁵<https://www.britannica.com/topic/material-culture>

¹⁶ Richard M. Dorson. *Concepts of Folklore and Folk Life Studies*, Apr 15, 1982. pp. 2-3

¹⁷<https://www.britannica.com/topic/material-culture>

From the mention above definitions, Material culture can be seen that is extremely important for every society to exist, the general agreement about material culture is that it is all kind of things used in society by people.

2.2 Material culture of the Boros:

Material culture is a part of human being. In the Boro society there is also found the traditional material culture obvious, in every part such as clothing, weaving materials, housing, food materials, ornaments, hunting tools, fishing tools, and agricultural materials, etc. The Boro has rich in material culture. The material culture is a very close relationship with the Boro society. The livelihood of Boro peoples is mainly depending on cultivation and they cultivate the crops by using their own homemade materials from time immemorial. The Boros are very rich in material culture. In this part of the chapter studied the material culture of the Boros.

2.3 Classification of Material Culture of the Boros:

Material culture includes various subjects which may be generally classified in five categories these are:

- *Subung arimu* (Folk Art)
- *Subung silpo* (Folk Craft)
- *Subung gannai-jwmnai* (Folk Costume)
- *Subung songnai-khaonai* (Folk Cookery) and

- *Subung luthai* (Folk Architecture)¹⁸.

2.3.1 *Subung Arimu* (Folk Art of the Boros):

The look for beauty is an endless desire for human life. This stimulates does not ever satisfy the material needs, rather then it brings satisfaction to human and eye. The strong rise up out of an aesthetic sense, each and every personal reaction to it in some track and other.

As per the IFAM International Folk Art Market, “Folk art is an expression of the world’s traditional culture. Folk art is rooted in traditions that come from community and culture – expressing cultural identity by conveying shared community values and aesthetics. Folk art encompasses a range of utilitarian and decorative media, including cloth, wood, paper, clay, metal and more. Folk art is made by individuals whose creative skills convey their community’s authentic cultural identity, rather than an individual or idiosyncratic artistic identity. Folk artists traditionally learn skills and techniques through apprenticeships in informal community settings, though they may also be formally educated”¹⁹.

The English word *art* is derived from the Latin word *Arse* or *Artem* meaning- to create. According to Oxford Advanced Learner’s Dictionary (1990), art means (a) creation or expression of something beautiful, especially in a visual

¹⁸Gwggwm Brahma Kochary. *Material Culture Of The Bodos : A Descriptive Analysis*, (Unpublished thesis) 2017. p. 36

¹⁹<https://folkartmarket.org/what-is-folk-art/>

form, e.g., painting, sculpture etc. (b) skill in such creation. Art is a human skill and work as opposed to nature. According to Stephen Fuchs ‘Art is a part of culture: if primitive man has culture, he will also be an artist’²⁰.

Mamie Harmon has defined “Folk art, predominantly functional or utilitarian visual art created by hand (or with limited mechanical facilities) for use by the maker or a small circumscribed group and containing an element of retention—the prolonged survival of tradition. Folk art is the creative expression of the human struggle toward civilization within a particular environment through the production of useful but aesthetic buildings and objects”²¹.

In the Boro society, the folk arts are found very obvious.

The folk arts of the Boro society are as follows:

1. In the time of worship of the Boros traditional religious *Bathousali* serially made a line with rice powder and in the festival of *Kherai* (religious festival of the Boros) made a small plot of land to worship other god and goddess through the *Bathou* are the high symbols of folk art of the Boros. And also found many symbols of folk arts in the part of the traditional religion of the Boros.
2. Making of the small and round plot of land *Mainao Bindw* (Place of goddess) in the room of the main house of the Boros *Ising* (main house of the Boros) to

²⁰ Stephen Fuchs. *The Origin of Man and His Culture*, 1963 p.196.

²¹ <https://www.britannica.com/art/folk-art>

keeping the goddess Ceres of the Boros *Mainao Burwi* (old goddess) and making the Fireplace *Daodab or Odab* of land to cook foods are folk arts of the Boros.

3. The making of design or embroidery *Agor Arnai* (making design) on the cloth of the Boro women, making of design or embroidery on *Songrai* (winnowing pan), *Sandri* (small sieve), *Sandanga* (large sieve) and making of design on wooden *Khamphlai* (small seat) and on the handle of *Hatha*²². And also found the folk art of the Boros in many parts of the Boro society besides, these mention above folk arts.

2.3.2 Subung Silpo (Folk Craft) of the Boros:

Folk crafts have a profound meaning for society in the daily life of the people. It is seen that the popular folk craft is an example of creativity expressed on the creating of human society. It grows out the need to meet the daily needs of people Crafts are an experience of the human spirit in materials form that satisfied the needs and gave pleasure to humanity. It is a fact that the popular folk craft items have a much greater meaning than is indicated by the value of their creation since they incorporate cultural, social, religious and artistic traditions in society. Folk crafts advise us about nature and necessities of life of the society which are the own production.

²²*Hatha* is a wooden tool use to distribute rice at the time of traditional marriage (*Hathasuni*) of the Boros.

According to the English Oxford Living Dictionary, “the making of traditional objects, usually by hand or by traditional methods; objects so made”²³.

John Mao, “the term craft has been derived from the Anglo-Saxon craft which means skill, strength or cunning in contrast to art which implies an intention of producing beauty or pleasure”²⁴.

In the New Book of knowledge, handicrafts have been defined as “objects made by hand, usually one at a time, are handicrafts”²⁵.

From the above mention definitions, the meaning of folk craft is very broad. It is cover all the homemade materials or objects in every activity that produce people by using hand skills with simple tools and mind. Generally, folk craft is known as the materials used in society made by people, such as weaving, agricultural, materials, toys, ornaments, hunting tools, fishing tools, and agricultural material.

The Boros are also very rice in the folk craft they used a variety of folk crafts in every activity of their daily life. Indramalati Narzaree and Birlang Narzary have discussed broadly by dividing into 3 (three) the folk craft of the Boros. These 3 (three) on the folk crafts of the Boros are as follows:

1. *Ouwa Arw Raidwngni Subung Silpo* (Folk crafts of Bamboo and Cane).

²³<https://en.oxforddictionaries.com/definition/folkcraft>

²⁴John Mao. *Traditional Craft and Technology in Manipur in Joy Prakash Sing (ed.), Archeology of North-Eastern Region*, p. 319.

²⁵*The New Book of Knowledge, Grolier Incorporated, Connecticut, USA, 1994. vol. – vi, pp. 78-79.*

2. *Hani Subung Silpo* (Soil's Folk Craft) and
3. *Dongphangni Subung Silpo* (Wooden Folk Craft)²⁶.

2.3.2.1 *Ouwa Arw Raidwngni Subung Silpo* (Folk crafts of Bamboo and Cane):

The Bamboo and Cane's folk crafts of Boros cannot be ended by discussion. The Bamboo and Cane's folk crafts are closed relationship with the Boro society. They used it from birth to death in every social activity. The origin religion of the Boros is *Bathou* and the *Bathousali* is made of bamboo. That is the example of the bamboo and cane's folk craft of the Boros. The Boro people used folk crafts as agricultural tools, fishing and hunting materials, household materials, handloom materials, etc. The main folk crafts of bamboo and cane's of the Boros are; *Mwi* (Harrow), *Sukhen*, *Baokha*, *Khada* (Basket), *Songrai* (Winnowing pan), *Sandanga* (Large sieve), *Swrkhi*, *Gonsha*, etc.

2.3.2.2 *Hani Subung Silpo* (Soil's Folk Craft):

The Boro people are also perfect to make the soil's folk craft. The making of *Bathou Bitha* is an example of soil's folk craft of the Boros. On the other hand, the Boro women were made the *Dwihu* (Pitcher), *Dw-Dwkhla* (Earthen utensils), etc. But at the present, the making of *Dwihu* (Pitcher), *Dw-Dwkhla* (Earthen utensils) is decreasing from the Boro society.

²⁶Indramalati Narzaree and Birlang Narzari, *Laisini Bikhayao Indramalati*, Guwahati. 1996. p. 17

2.3.2.3 *Dongphangni Subung Silpo* (Wooden Folk Craft):

The wooden folk crafts are also closely related to the Boro society. The Boros are mainly depends on cultivation to their livelihood. They cultivate various crops by using their own homemade wooden materials. The some of the main wooden materials are; *Nangal* (Plough), *Jungal* (Yoke), *Bedha* (Big Rake), *Ual- Gaihen*, *Khamplai*, *Naodra*, *Serja*, etc. These are the wooden folk crafts of the Boros. And also they used a variety of wooden materials in the household.

2.3.3 *Subung Gannai-Jwmnai* (Folk Costume) of the Boros:

According to Wikipedia, the free encyclopedia, “A folk costume (also regional costume, national costume, or traditional garment) expresses an identity through costume, which is usually associated with a geographic area or a period of time in history. It can also indicate social, marital or religious status. If the costume is used to represent the culture or identity of a specific ethnic group, it is usually known as ethnic costume (also ethnic dress, ethnic wear, ethnic clothing, traditional ethnic wear or traditional ethnic garment). Such costumes often come in two forms: one for everyday occasions, the other for traditional festivals and formal wear”²⁷.

The Boro also has its own traditional dresses. The traditions of wearing and adoption of such dresses among them are not traceable and it is ascertained that they adopted these dresses when they were civilized. The anthropologists say such kinds of dresses are a handed down to them since the time of ancestors.

²⁷https://en.wikipedia.org/wiki/Folk_costume

Dresses are one of the most important factors in costumes. The sense of style and its taste can be traced in the traditional dresses used by the Boros, who is quite simple by nature. The Boro dresses have a separate and distinguished quality. The Boro society approves of various befitting dresses for various occasions. The Boro dresses can be classified into three (3) types.

These are:

1. Dresses for Male.
2. Dresses for Female and
3. Dresses for Both (Male and Female).

The Boro women prepare their dresses by self at their own home through traditional weaving techniques. They are expert to make the cloths and *Agor Arnai* (making of design) likes flowers, animals, birds, etc. They make clothes for everyone. The mention above classification of three (3) types dresses are as follows:

- 1. Dresses for Male:** The traditional dresses of the Boro males are *Gamsha*, and *Goshla* (Genji).
- 2. Dresses for Female:** The traditional dresses of Boro females are *Dokhona*, *Jwmgra*, and *Goshla* (Blouse).

3. Dresses for both (Male and Female): The traditional dresses of the Boro used by both male and female are: *Aronai*²⁸, *Sima* (Like bedsheet), *Ji ul*²⁹ and *Agor Phali*³⁰.

These are the *Subung Gannai-Jwmnai* (Folk Costume) of the Boros. They wear it in every activity of their daily life.

2.3.4 Subung Songnai-Kaonai (Folk Cookery) of the Boros:

The folk cookery is an essential part of folk culture which covers the whole subject of food production, preparation and preservation and along with the actual cooking methods and consumption of food, which is known as ethnic food habit.

About the ethnic food habit or folk cookery, Don Yoder writes says, “Folk cookery can be reality defined as traditional domestic cookery marked by regional variation”³¹.

Gwgm Brahma Kochary says in his unpublished thesis, “The Bodos lead rural agrarian live and they have very close contact with nature. Their living style and food habits are conditioned and influenced by nature. Like other tribes of

²⁸*Aronai* is a traditional respectable cloth of the Boro society. They used it male and female mainly in occasions and also they used it to felicitated guises.

²⁹*Ji ul* is a hot cloth used in winter season by covering whole body.

³⁰*Bwisagu Phali* is a kind of hand key made by Boro women and they offers to relative person in the traditional festival Bwisagu of the Boros.

³¹Don Yoder, *Folk Cookery in Dorson ed. Folklore and Folk life*, p.325

Assam the rice is the staple food of Bodos. Along with the rice they also eat curry prepared from varieties of green leaves and herbs. They also eat fishes and meats of different birds and animals. Besides their staple food they also consume some additional food and drinks. The system of diet in health and disease are more evident in the life of the tribal folk³².

The *Wngkham* (Rice) is the staple food of the Boros. Along with the *Wngkham* they eat a variety of *Wngkhri* (Curry) for example *Sobai Wngkhri*, *Onla Wngkhri*, *Narji Wngkhri*, *Sulabari Wngkhri*, *Mwidru*, *Bhaja*, etc. And also they eat the fish, meat, snail and some kind of insects like cricket, crab, etc. according to Gwgnw Brahma Khachary There are some types of preparation for cooking of curry. These are:

- *Lao-lao or bidwi* (broth or gravy)
- *Sithwb-sithwb* (preparation with a little amount of water or less quantity of broth or gravy)
- *Eophramnai or phram-phram eonai* (fried)
- *Labra* (mixed of variety vegetables)
- *Mwidru* (boiled vegetable without oil and spices)
- *Bathwn* (paste or chatni)
- *Khaji*, vegetable cooked with a variety of meat for consumed especially with *Zwu* (Wine) on some occasions. But some green

³²Gwgnw Brahma Kochary, P. 184

items are also known as *Khaji* like- slice of *Thaibeng* (Cucumber), *Thaijwu gwthang* (slice of green mango), etc.³³

Boro women are expert to make varieties of foods. They have a tradition to have food three times in a day, i.e. Morning, Noon and Night. All the times they use to have rice food. And also make the *Phitha*, *Sithao*, *Anthab*, *Sworai*, etc. by using the rice in the *Domasi* festival of the Boros. As a making system of curry or food, the Boro people make different kind of food systems like *Menai* (Sparkle putting or roasted), *Saonai* or *Hangnai* (Baking), *Runai* (Boil), *Eonai* (Fried), *Khaji Logainai* (Salad), *Bathwn Denai* (Grinded together), *Napham*, etc. and the Boro people make some drinks also. The drinks of the Boro people are *Zwo bidwi* or *Zwo gishi* (Rice beer), *Zwo gwrn* (Wine), *Wngkham maidi* (Smash rice), *Banlu bidwi* (Chili soup) etc.

Traditionally the Boro women did not used the market's spices like, *Meat Masala*, *Gorom Masala*, *Jeera*, *Panch phoron*, etc. in every food system. They make and cook the food by using jungle spices like *Onthai bajab*, *Nwrsing*, *Maisundri*, *Dundiya*, *Gongar Dundiya*, *Podina*, etc. They are very expert to make food tasty. Every Boro women prepare the curry, rice at their home; it is the basic work of them. The Boro women are expert to make delicious food. These are the ethnic food habits of the Boros.

³³Gwgm Brahma Kochary, P. 198

2.3.5 *Subung Luthai* (Folk Architecture) of the Boros:

One of the most important elements of material culture is folk architecture. It is the basic needs of every people of the society.

“Folk architecture is the living environment people have created for themselves. We can define local architecture as an architecture formed in the process of anonymous design which later becomes traditional under the influence of various factors. Local architecture is one of the most important sources of information to allow us to understand and explain the ideas, views, traditions, customs and belief systems, family and relationships and neighbourhood relations of a community”³⁴.

According to Rev. S. Endle, “..... One prominent feature in the typical Kachari village cannot fail to strike the attention of any casual visitor at first sight. Each house, with its granary and other outbuildings, is surrounded by a ditch and fence, the latter usually made of *ekrá* reeds, jungle grass or split bamboo, & The ditch some three or four feet in depth, surrounds the whole homestead, the earth taken from it being thrown up on the inner side, i.e., that nearest to the dwelling-house; and on the earthworks, some two or three feet in height, so thrown up are firmly inserted the reeds or split-bamboo work forming the fence itself, this latter often inclining outwards at a very obtuse angle; so that the ditch and fence are not easily surmounted from the outside by would-be intruders. A Kachari village usually abounds in domestic live-stock of various

³⁴<http://www.kultur.gov.tr/EN-98763/folk-architecture.html>

kinds, e.g., ducks, fowls, goats, pigs, cattle & and it can hardly be doubted that the fence and ditch above spoken of are largely intended to prevent the cattle, pigs & from getting into the rice-fields at night, and so doing serious damage to the paddy and other crops. With the abundance of live-stock, especially hogs reared and kept by the Kacharis, it need hardly be said that the villages can scarcely be described as being cleanly; though as a rule they do not differ so much as might be supposed in this respect from their Hindu neighbours, separate buildings being provided for the pigs, goats & etc. and appreciable distance from the family dwelling-house”³⁵.

The folk architecture is basic needs in the Boro community also their livelihood depend on folk architecture. Traditionally they have *Nomano* (main house), *Swora no*, *Bakhri* (Granary), *Gogra*, *Goli*, etc. Before constructing the house they choose the good side by using their traditional methods (belief system) to construct the house (they call it *Bitha saikhonai*). After selecting the good side they construct the house. Generally Boro people are knows to make the house and they make their own house. They have traditionally constructed the house by using the natural resource. Like wooden post, bamboo, thatch, *engkhwr*, *theuol* (bamboo split), and *dhigileoa bendwng*, etc. and the Boro women are plastered the wall of house by mixing cow dung and mud. Traditionally the Boro people have their particular constructing house system.

The material culture plays main roles in every ethnic group. As well as the mentions above classifications of the material culture are also play a main role of

³⁵ Rev.S. Endle:*The Kacharis*, Reprinted-1990.PP.11-12.

the Boro society in their day to day life. In every activity they use their material culture and they are rich in the material culture.

CHAPTER- 3

TRADITIONAL AGRICULTURAL TOOLS OF THE BOROS

3.1 Agricultural Tools:

Agriculture is the main occupation of the villages in maximum states of India. Their livelihood depends on agriculture and they use various kinds of materials in the purpose of agriculture, this occupation since the time immemorial. According to Dermott, “the first great food revolution took place when men began to grow food crops and to domesticate animals. From the study of the tools found in many sites, researchers believe that agriculture began in the east and then spread to Europe about 12000 years ago”³⁶.

In this way, they have used various kinds of agricultural tools to produce agriculture. P K Das & D Nag said: “agricultural tools are as old as the Stone age. They were required to facilitate working and to increase the productivity of human workers. New tools were developed during copper, bronze and iron ages. Besides stones, other non-metals like wood, leather, bamboo and fibres were used in tools but most of them became extinct with the introduction of iron.”³⁷ The same thing is happening in Boro society. Their livelihood also based on agriculture; they cultivate the crops since the time immemorial and their

³⁶ I.E. Mc. Dermott: *Food for Modern Living*, p.7.

³⁷ Indian Journal of Traditional Knowledge Vol. 5(1), January 2006, pp. 41-46

civilization was starting from cultivation. According to Kameswar Brahma, “agriculture is the chief occupation of the Bodos”³⁸. In the Boro society also found various kinds of agricultural tools.

3.2 Traditional Agricultural Tools:

Agriculture is the main source and primary occupation of the Boros living in the Bodoland Territorial Area District. Like other communities of villages in Indian states, they use various agricultural tools for the purpose of various cultivations. The agricultural tools of the Boros play important role in their daily life. They use a variety of agricultural tools as per their requirement and they make these tools at home by themselves from natural resources. They make their agricultural tools generally from bamboo, woods, and iron. By using these materials, they prepare the paddy field and cultivate the crops from time immemorial.

About the use of agricultural tools of the Boros Paresh Bhuyan says, “Their main tools of cultivation are a pair of *Bullocks*, *Nangal*, *Jungal*, *Dangur*, *Chili* and some other equipment which the Bodo people make for themselves for their convenience. Bodo people are still unable to accept the modern tools and systems of cultivation because of lack of help, guidance and their poor financial condition.”³⁹

³⁸Kameswar Brahma. *A Study Socio-Religious Beliefs, Practices and Ceremonies of the Bodos (With Special Reference to the Bodos of Kokrajhar District)*, Kolkata, 2015. P. 17

³⁹ Paresh Bhuyan. *Folk Art & Culture of Bodo-Kachari and Rabha tribes of Assam*, Bathoupuri Cultural complex, Garchuk-Ahomgaon, Guwahati. February, 20015 P. 18

3.3 Bamboo Tools of the Boros:

The tools of the Boros are made mainly from bamboo plants. Bamboos are a group of plants which belongs the grass family. The Bamboo plant is called *Ouwa Biphang* in Boro. There are different types of bamboos are found in Bodoland Territorial Area District of Assam. The Boros are using a different kind of bamboos for the purpose of various activities.

In every traditional activities of the Boros use the bamboos like, in the purpose of house construction, religious activities, agriculture, handloom, hunting, fishing etc. and also during the time of baby born in the village the traditional nurses (the old aged women of the village helps by performing as a traditional nurse) of the villages used *Khathimal* or *Ouwa Nejli* (a sharp-edged slip of bamboo) to cut the naval of baby and when people die in Boro villages then the bamboo used to make *Gwthwi Bathi* to carry the dead body to the cremation ground. The bamboo is used in Boro society since the baby born to the death of people. That means the bamboo is a very close relationship with the Boro society, they use it starting to end in every activity of their livelihood. In this regards, the Boro people plant the bamboos for their necessarily used. The bamboos are plant by them and the maximum bamboo plants are found in every Boro villages of B.T.A.D., Assam.

According to Bamboo Technology, Department of Biotechnology, Bodoland University, Kokrajhar, as per their data collection in the villages of Kokrajhar

district, B.T.A.D., Assam, they have found different kind of sixteen types of bamboos (Fig. 3.1)⁴⁰. The sixteen (16) types of bamboos are:

Table I: List of bamboo species encountered in Kokrajhar district with their vernacular name and place of collection				
Sl. No.	Scientific Name	Bodo Name	Assamese Name	Place of collection
1.	<i>Bambusa assamica</i> Barooah et Borthakur	Owa there	Saur bijuli	Dotna, Karigaon
2.	<i>Bambusa balcooa</i> Roxb.	Owa burkha	Bhaluka banh	Dimalgaon, Karigaon
3.	<i>Bambusa bambos</i> Willd.	Owa suganang	Kotoha banh	Dimalgaon
4.	<i>Bambusa garuchokua</i> Barooah et Borthakur	Owa gorai athing	Nagal banh	Dotna, Titaguri, Karigaon, Dimalgaon
5.	<i>Bambusa multiplex</i> (Lour.) Raeusch. Ex Schult.	Owa barsidanda	Jupri banh	Hadanpara, Bengtol
6.	<i>Bambusa pallida</i> Munro	Owa hathai	Bijuli banh	Throughout the district
7.	<i>Bambusa polymorpha</i> Munro	Owa ridwing	Betwa banh	Dimalgaon
8.	<i>Bambusa tulda</i> Roxb.	Owa gubwai	Jati banh	Throughout the district
9.	<i>Bambusa vulgaris</i> Schrad. ex J. C. Wendl. f. <i>Waminii</i> (Brandis) Wen	Owa daihu	Kolochi banh	Batarmari
10.	<i>Bambusa vulgaris</i> Schrad. ex J. C. Wendl. var. <i>Vulgaris</i> A. Riviere & C. Riviere	Owa telai	Telai banh	Dimalgaon
11.	<i>Bambusa vulgaris</i> Schrad. ex J. C. Wendl. var. <i>Vittata</i> A. Riviere & C. Riviere	Owa gwmw	Halodhia banh	Karigaon, Batarmari, Chandarpara
12.	<i>Dendrocalamus hamiltonii</i> Munro	Owa khangkhua	Kekowa banh	Dotna, Karigaon, Dimalgaon
13.	<i>Dendrocalamus giganteus</i> Munro	Owa khangkhua gidir	Kako banh	Balagaon
14.	<i>Gigantochloa albociliata</i> (Munro) Kurz	Owa phakra	Kalisuneti	Titaguri
15.	<i>Melocanna baccifera</i> (Roxb.) Kurz	Owa thorai	Muli banh	Dotna, Debargaon, Charaikhola
16.	<i>Schizostachyum pergracile</i> (Munro) R. Majumdar	Owa maidang	Medang Banh	Karigaon

Fig. 3.1

Among they have mentioned above sixteen types bamboos the Boro people are making their traditional tools mainly by using the following bamboos;

⁴⁰ https://www.researchgate.net/publication/261904530_Inventorying_bamboo_diversity_of_Kokrajhar_District_BTAD_Assam_India_with_emphasis_on_its_uses_by_the_Bodo_tribes

1. *Ouwa Gubwi* which is in serial no. 8, scientific name is *Bambusa Tulda* Roxb.

2. *Ouwa Burkha* it is serial no. 2, the scientific name is *Bambusa balcooa* Roxb. And

3. *Ouwa tere* is in serial no.1, *Bambusa Barooah et Borthakur assamica*

Besides these bamboos, the Boro people use all of these sixteen (16) types of Bamboos in the different purpose of their requirement.

3.4 Bamboo and *Raidwng* (Cane) Tools in Agriculture:

The Boros generally lives in rural areas which are far from town and city. Cultivation is their livelihood. They cultivate by using different kinds of tools. Among them, maximum tools are made by bamboos since the time immemorial. The bamboo tools used in the agriculture of the Boros are as follows:

1. *Mwi* (Harrow)
2. *Laothi* (Stick)
3. *Khwthiya Bathi* (Seedling carrier tool)
4. *Khophri* (Rain Protector)
5. *Haikhongsi*
6. *Khokla* or *Mwswokho* (Bamboo mask)
7. *Sulabari* (Carrier tool)
8. *Baokha*(Carrier tool)
9. *Sukhen* (Grain separator)

10. *Dahra* (Mat)
11. *Gon* or *danda*
12. *Khada* (Bamboo basket)
13. *Duli* (Grain store)
14. *Songrai* (Winnower)
15. *Sandri* (Sieve)
16. *Sandanga* (Large sieve)
17. *Pharla* or *Phalla* (Weighing Tool) and
18. *Abwidangi* or *Mwigong khada* (Vegetable basket)

The above-mentioned bamboo and *Raidwng* (Cane) tools use in agriculture of the Boros were identified and described below.

3.4.1 *Mwi* (Harrow):

The harrow is a clod breaker and soil planer tool. By using this tool, make paddy field a favorable condition for seeds placement. This tool is mainly made of *Wowa Burkha* scientific name is *Bambusa balcooa Roxb.* It's made of big split bamboo by dividing equally a bamboo. It's around 5 ft length and 1-1.5 ft width and it is look like a ladder (Fig. 3.2 *Mwi*). It is designated by some components these are *Dirung* (Rope), *Mwi Dangur* (Beam), *Lengra Dirung* and *Gagra* or *Gakhwgra*. The rope is used to tie the harrow. The *Mwi Dangur* is also made of bamboo, it's around 3-4 m. length and it's used to join with *Jungal* (yoke). It's operated only by male farmers. The used of life implement is based on users of

the tool and it is not found in the market. As they required, every Boro farmers make it at home and still they use this tool⁴¹.



Fig.

3.2 *Mwi* (Harrow)

The components of *Mwi* (Harrow) are:

1. *Mwi dangur* (Beam)
2. *Mwi* (Harrow).
3. *Mwi Khagra Dirung*.
3. *Lengra dirung* and
4. *Gagra* or *Gakhwgra*.

⁴¹Review of Research Vol.-8, Issue-6, March 2019, P 91

3.4.2 *Laothi* (Stick):

Stick is also a common tool for every farmer of the Boros. It's mainly made of *Ouwa Burkha* scientific name is *Bambusa balcooa Roxb* and the length of *Laothi* (stick) is around 3-4 ft and around 1.5 inches thick as their required (Fig. 3.3*Laothi*).



Fig. 3.3 *Laothi* (Stick)

The stick is used to drive bullocks or buffalos mainly in the time of tilling and *Mwi Hwnai* (Harrowing)⁴². It is used by maximum male farmers and its life implement is based on the users of the tool and it is not found in the markets. It is made by them at home and it is still used by them⁴³.

3.4.3 *Khwthiya Bathi* (Seedling carrier tool):

The *Khwthiya Bathi* (Seedling carrier tool) is a carrier tool which is made of *Ouwa Gubwi* (scientific name is *Bambusa Tulda Roxb*).

⁴²*Mwi Hwnai* is a work which is clod breaker and soil planer by using the *Mwi* (Harrowi)

⁴³Review of Research Vol.-8, Issue-6, March 2019, P 91



Fig. 3.4 Khwthiya Bathi

The *Khwthiya Bathi* is around 10 ft length and around 6 inches thick. It's used to carry the *Khwthiya* (Seedling) by shouldering for the placement or plant in the paddy field (Fig. 3.4 *Khwthiya Bathi*). It is operated by male farmers and it is also not found in the markets. They made it at home and still used by them⁴⁴.

3.4.4 Khophri (Rain protector):

The *Khophri* is made of bamboo; especially *Ouwa Gubwi* scientific name is *Bambusa Tulda* Roxb. They made it by twist split bamboo and in between the split bamboo dried *Laihulai* (some kind of wild leaf) is placed in such a way that it protects the farmers from the rain and the border areas are tied with the help of *Raidwng* (one kind of cane) or *Ouwa khathi* (small bamboo split) the bamboo which is bent according to the shape of the *Khophri*, farmers wear it on their heads with the support of *Goi Bikhong* (cover of betel nut three) or *Dirung* (Jute

⁴⁴Review of Research Vol.-8, Issue-6, March 2019, P. 91

rope) or Cloths, which is placed in such a way that it can be cover on around the head of the user. But now a day, the farmers are using plastic in the place of dried *Laihulai* (some kind of wild leaf). The operation in various shapes and size, the wide of the *Khophri* is in lower side 3 to 4 ft and the length is around 4 ft, the upper side is bent and pointed (Fig. 3.5 *Khophri*). The Boro farmers have mainly used it during the time of raining in the paddy field. They work *Mai Gainai* (rice plantation), *Khwthiya Phunai* (Unearth the seedling), *Hal Eonai* (Tilling), *Ali Khwnai* (plotting), etc. without any problem by using this *Khophri*. The *Khophri* is used by both male and female. The cost of the *Khophri* is around 200 per one and it is not available in the markets. The life of implement is based on the users of the tool and the users of this tool are decreasing from the Boro people⁴⁵.

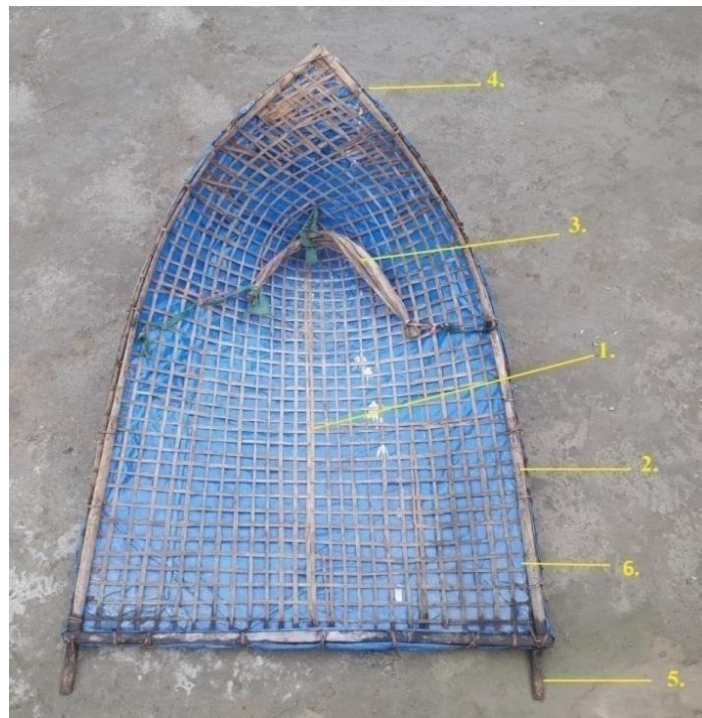


Fig. 3.5 *Khophri*

⁴⁵ Brindabon Mushahary, age 29, Dwimuguri, P.O: Karigaon, Dist.: Kokrajhar, BTAD, Assam.

The components of the *Khophri* are:

1. *Raidwng* (one kind of cane) or *Ouwa Khathi* (small bamboo split).
2. *Goi Bikhong* (cover of betel nut three) or *Dirung* (Jute rope) and
3. *Laihulai* (some kind of wild leaf) or plastic.

3.4.5 *Haikhongsi*:

The *Haikhongsi* is also an agricultural tool of the Boro. This tool is made up of bamboo or wood and it is used to poke up the jungles in the time of clear by cutting for agricultural land preparation.



Fig. 3.6 *Haikhongsi*

The branch of *Ouwa Burkha* scientific name is *Bambusa balcooa Roxb* is common bamboo to make the *Haikhongsi*. The size of this tool is around 3

inches thick and 3 to 4 ft length and banded around 6 inches to reverse. (Fig. 3.6 *Haikhongsi*) and it is not available in the markets. They made it at home and it is still used by them.

3.4.6 *Khokhla* or *Mwswokho* (Mask of Bamboo):

Khokhla or *Mwswokho* is one kind of mask for Bullock. It is made of twist split bamboo *Ouwa Gubwi* scientific name is *Bambusa Tulda* Roxb with *Dirung* made of jute to tie it around the neck of the bullocks and buffalos and it helps in covering the mouth of the bullocks and buffalos.

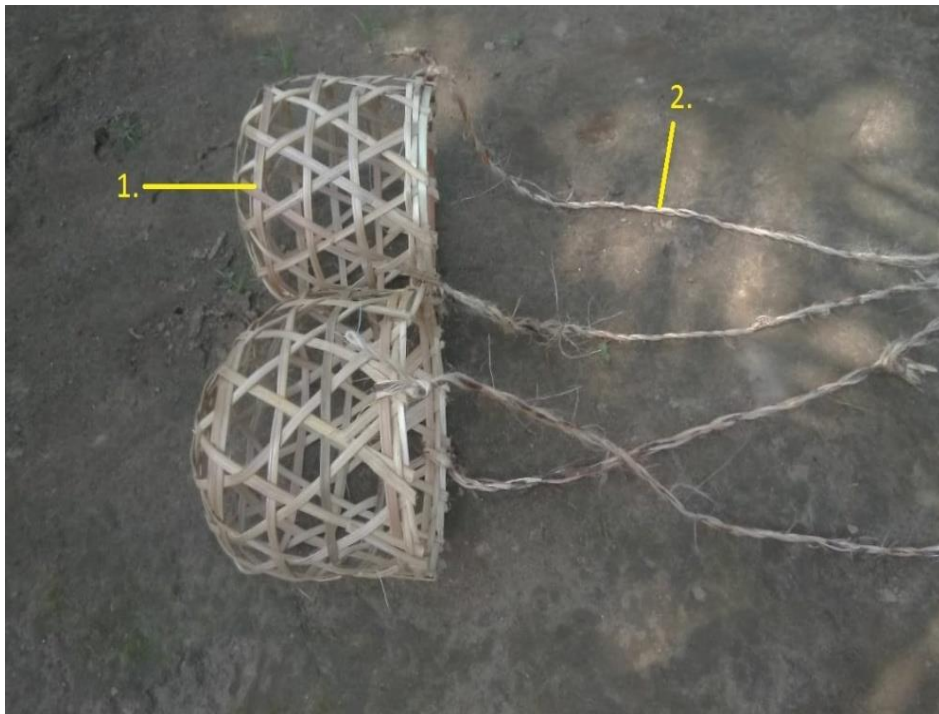


Fig. 3.7 *Khokhla* or *Mwswokho*

The design of *Khokhla* or *Mwswokho* is like a small basket. Its length is around 7 inch and breadth is also 7 inch (Fig. 3.7 *Khokhla* or *Mwswokho*). It is used in order to protect the crops and keep away from being eaten by bullocks

and buffalos during the time of tilling near the crops and the *Mwi Hwnai* (Harrowing) of *Ashu Mai*⁴⁶. The cost of this tool is around Rs. 60 per fair and it is not available in the market and nowadays the used of this tool is decreasing from the Boro society⁴⁷.

The components of *Khokhla* or *Mwswokho* are:

1. *Khokhla* or *Mwswokho* (Twist split bamboo) and
2. *Dirung* (Jute rope).

3.4.7 *Sulabari* (Carrier tool):

Sulabari is a carrier tool. The *Sulabari* is made up of *Ouwa burkha* scientific name is *Bambusa balcooa Roxb* bamboo. It's a piece of split bamboo point of end in both sides, around 7 ft length and around 4 inches thick (Fig. 3.8*Sulabari*). Mainly it's used to carry the bundles of paddy from the paddy field to the *Kholsihla* (Thrashing court) or till the bullock cart by shouldering. The *Sulabari* can be carried four (4) to eight (8) bundles of paddy by the shoulder at a time. This tool is used by the male only. The life of implement is based on the users of the tool and is not found in the market, it is made at home by themselves and it is still used by them⁴⁸.

⁴⁶*Ashu mai*: one kind of rice crop. It is cultivate the Boro people spring season. After placement the *Ashu jwlwi* (seeds) when become seedling and grows then they harrowing the *Maibari* or *Maithili* (Paddy field) to remove the jungle.

⁴⁷Ronjon Basumatary, age 27, Dumbruguri, P.O.: Karigaon, Dist.: Kokrajhar, BTAD, Assam.

⁴⁸Review of Research Vol.-8, Issue-6, March 2019, P 91



Fig. 3.8 *Sulabari*

3.4.8 *Baokha* (Carrier tool):

Baokha is also one kind of carrier tool. It is also made of split bamboo *Ouwa Burkha* scientific name is *Bambusa balcooa Roxb.* It has not pointed both the end sides, around 5 ft length and around 4 inches thick (Fig. 3.9 *Baokha*). But both of the end sides have cut for the knot to hang the *Singkhai* is made of *Phathw Dirung* (Jute Rope). The components of the *Baokha* are mainly two these are *Baokha* (*Ouwa*, made by bamboo) and *Singkhai* (*Dirung*, made by jute rope). It is a loop cord of rope and it can carry heavy loads by shouldering. It is also used by male farmers only. It is not found in the market, it is made at home by themselves and nowadays used of this tool is also decreasing from the Boro farmers⁴⁹.

⁴⁹Nomol Baro, 2 no. Nachanchali, P.O.: Paneri, Dist. Udalguri, BTAD, Assam.



Fig. 3.9 Baokha

The components of the *Baokha* are:

1. *Baokha* (made of bamboo) and
2. *Singkhai* (made of jute rope).

3.4.9 Sukhen (Grain separator tool):

It is grain separator tool. Generally, it is made of *Ouwa Gubwi* scientific name is *Bambusa Tulda Roxb* and *Ouwa Burkha* scientific name is *Bambusa balcooa Roxb*. It is used to make separate with grain and straw in the time of thrash and also this tool is useable for other works also like *Hagra Khainai* (to the separate jungle from the soil). The *Sukhen* is around 7 ft long and 5-inch thick bamboo hooked in the one side of the end which is the operation area of tools (Fig. 3.10 *Sukhen*).



Fig. 3.10 Sukhen

Mainly it is also used by the male farmer. It is not found in the market, it is made at home by the Boro farmers and it is still used by them⁵⁰.

3.4.10 Dahra or Am (Bamboo mat):

The *Dahra* or *Am* is one kind of mat. It is made by twist bamboo split.



Fig. 3.11 Dahra or Am

Generally, *Ouwa Gubwi* scientific name is *Bambusa Tulda* Roxb and *Ouwa Tere* scientific name is *Bambusa Barooah et Borthakur assamica* is used to make this

⁵⁰Review of Research Vol.-8, Issue-6, March 2019, P. 92

Dahra Or *Am* (bamboo mat). The size of this tool is rectangle length is 6 to 7 ft and wide is 4 to 5 ft as their required (Fig. 3.11 *Dahra*). After harvesting the crops they used this tool to make dry the crops or cereals. This is operated by both male and female. Now a day the cost of this tool is around Rs. 250 in the market. The users of this tool are becoming less in Boro society⁵¹.

3.4.11 *Khada* (Basket of Bamboo):

Khada is one kind of basket made up of twist bamboo split and it is plastered by *Gwbwrki* (Cow dung) so crops or cereals do not fall out from the basket. It is made by generally *Ouwa Gubwi* scientific name is *Bambusa Tulda* Roxb.



Fig. 3.12 *Khada* (Basket)

⁵¹Gaorao Boro, New Balajan, P.O. Karigaon, Dist.: Kokrajhar, BTAD, Assam

The breadth of the *Khada* is around 1.5 ft and high is around 1 ft (Fig. 3.12 *Khada*). The Boro people are used to bring the crops or cereals. This tool is operated by both male and female farmers. The cost of this tool is around Rs. 150 and *Khada* is found in the market and the Boro farmers have still used it⁵².

3.4.12 *Gon or Danda*:

It is also an agricultural tool for Boro farmers. It is a long and tiny bamboo stick call by them *Gon* or *Danda*. It is made by a branch of bamboo specially, *Ouwa Gubwi* scientific name is *Bambusa Tulda* Roxb it is common to make it.



Fig. 3.13 *Gon or Danda*

The size of this tool is 2 to 3 inch thick and 8 inches to 1 ft long (Fig. 3.13 *Gon or Laothi*). This tool is operated by both male and female farmers and it is not found in the market. The Boro farmers are made it at home as their required and it is still used by them.

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3.4.13 *Duli* (Grain store):

Duli is a kind of grain store but it is not granary. It is made up of twist split bamboo and some are plastered its whole body by *Gwbwr* (cow dung) to save it from falling outside from the *Duli* (grain store) but some do not plaster by *Gwbwr*. The Boro people are generally made up of it by *Ouwa Gubwi* scientific name is *Bambusa Tulda* Roxb. It is used to keep the grain and they keep the *Duli* inside the home. The Boro people are made the *Duli* as their required *Duli Pisa* (small *Duli*) and *Duli Gidir* (big *Duli*). The general size of *Duli* is breadth around 4 ft and high is around 5 ft (Fig. 3.14 *Duli*). The cost is around 800 per one and it is operated by both male and female farmers and this tool is still used by the Boro farmers.



Fig. 3.14 *Duli*

3.4.14 *Songrai* (Winnower):

It is one kind of winnower tool of the Boros. They made up it by twist *Ouwa Khathi* (small split bamboo) and the *Ouwa Gubwi* scientific name is *Bambusa Tulda* Roxb, it is the common bamboo to make up it. The size of *Songrai* is round or woven plate around 2.5 ft breadth (Fig. 3.15 *Songrai*).



Fig. 3.15 *Songrai* (Winnower)

It is used for winnowing to make separating the grains from dust and husk. It is in two ways, one is used by female and another one is used by male. As using of male, it involves throwing the mixture into the air so that the wind blows by *Songrai* (winnower) and made away from the *Gugla* Or *Thepha* (Grain less) lighter husk and dust, while the heavier grains fall back down for recovery. The cost of *Songrai* is around Rs. 170 and both male and female farmers are

operating it among these mostly women are operating this tool. It is found in the market and the Boro farmers have still use this tool⁵³.

3.4.15 *Sandri* (Sieve):

It is one kind of smaller separation bamboo tool of the Boros. They made up it by twist *Ouwa Khathi*(small split bamboo) and the *Ouwa Gubwi* scientific name is *Bambusa Tulda Roxb*, it is the common bamboo to make up it. The size of *Sandri* is round or woven plate around 1.5 ft breadth (Fig. 3.16 *Sandri*).



Fig. 3.16 *Sandri* (Sieve)

It is used to make finally separate the grains from dust by shaking it on *Sandri* after trashing. The operation area is screen such a mesh or net made of twist of split bamboo where the working area is tied to the border made of bamboo with the help of metal wire or *Raidwng* (one kind of cane). It is generally

⁵³Review of Research Vol.-8, Issue-6, March 2019, P. 92

operated by female workers only. The cost is about Rs. 120 and it is available in the markets and still used by the Boro farmers.⁵⁴

3.4.16 Sandanga (Large sieve):

It is also one kind of bamboo tool of the Boros. They made up it by twist *Ouwa Khathi* (small split bamboo) and the *Ouwa Gubwi* scientific name is *Bambusa Tulda* Roxb. It is common bamboo to make up it. The size of *Songrai* is round or woven plate around 3 ft breadth (Fig. 3.17 *Sandanga*).



Fig. 3.17 Sandanga (Large sieve)

⁵⁴Review of Research Vol.-8, Issue-6, March 2019, P. 92

This is also a tool, used to make finally separate with grain and straw by shacking it on *Sandanga*, after separating with *Sukhen*. It's made of bamboo and design is oval around 3 ft wide round twist together in a little hole with a little piece of split bamboo like the net. It is operated by maximum female farmers. This tool is found at the market and the cost is Rs. 150-200 per piece and it is still used by the Boro farmers.⁵⁵

3.4.17 *Abwidangi* or *Mwigong Khada* (Vegetable basket):

This is also one kind of smaller bamboo basket. They made up it by twist *Ouwa Khathi* (small split bamboo) and the *Ouwa Gubwi* scientific name is *Bambusa Tulda* Roxb. It is common bamboo to make up it.



Fig. 3.18 *Abwidangi* or *Mwigong Khada* (Vegetable basket)

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The size of *Abwidangi* or *Mwigong Khada* (Vegetable basket) is round around 1 ft breadth and around 8 inches high (Fig. 3.18 *Abwidangi* or *Mwigong Khada*). They used it to wash the vegetables in the time of preparation for the cook. It is operated by female workers. The cost is about Rs. 60 and nowadays it is not available at the market and the users of this tool are also decreasing from the Boro society. Instead of this tool, the plastic basket is used.

3.4.18 *Pharla* or *Phalla* (Weighing Tool):

Pharla is a weight measuring tool and it is made by the Boro farmers. The size of *Pharla* is round in shape, made of closely twisted of *Raidwng* (one kind of cane).

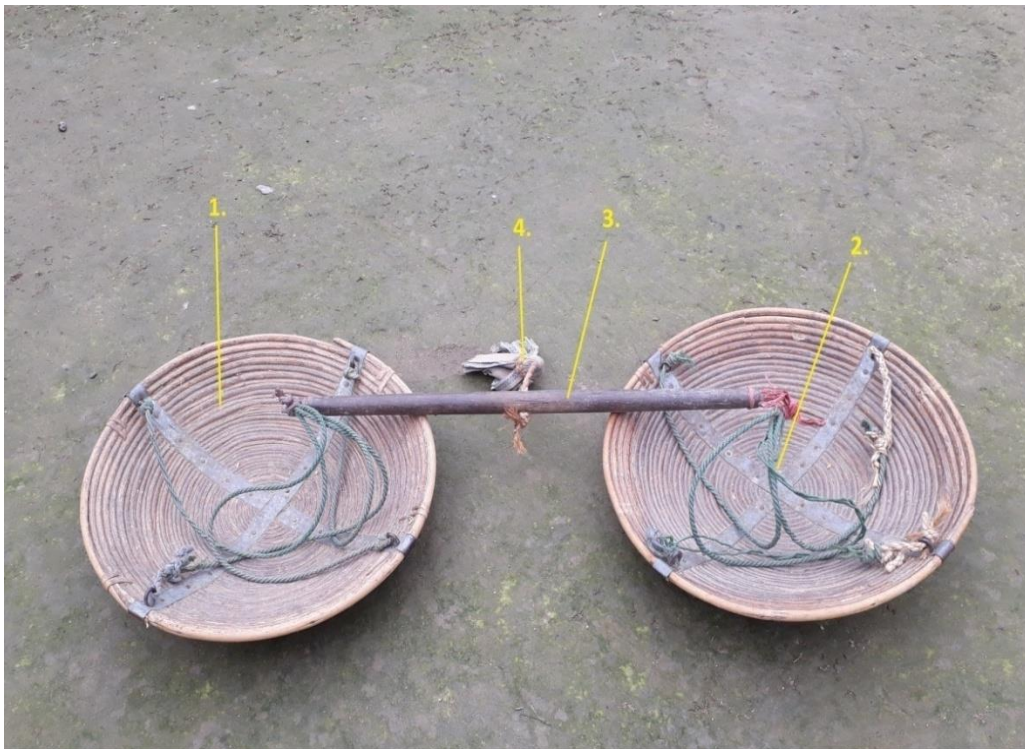


Fig. 3.19 *Pharla* or *Phalla* (Weighing Tool)

The two round shape measuring plates are tied to a wooden stick call by them *Pharla Danda* at both the end sides with the help of ropes made of jute call by them *Pharla Dirung* and another rope or piece of cloths is tied to the middle of the *Pharla Danda* wooden stick is call *Pharla Akhai*, so that people can hold the *Pharla Akhai* rope at the middle of the wooden stick and balance the *Pharla* for the purpose of measuring grains with the help of weight units (Fig.3.19 *Pharla*). The length of the handle of *Pharla* is measure 2.5 ft in length and it can be operated by both male and female. The cost is around Rs.300. per pair. But nowadays it is not found in markets and the users of this tool also decreasing from the Boro society.

The components of *Pharla* are given below:

1. *Pharla*
2. *Pharla dirung*
3. *Pharla danda* and
4. *Pharla akhai* (Handle)⁵⁶.

Besides, Bamboo has also been used to protect seasonal vegetables from the disturbances of Cow, Goat, Pig, etc. Even, Bamboo twigs are also used to support creeper types and vegetables such as pumpkins, gourd, cucumber, bitter gourd, etc. The Boro farmers also use bamboo in the construction of irrigation for supplying water in the field. In this connection, M. M. Brahma brought a point that “the Boro cultivators were said to have introduced for the first time the art of

⁵⁶ Informant: Bargosi Borgoyary, age 60 years, Thaigerguri, P.O. Gurubasha, Dist. Chirang

irrigation system in Assam by excavating channels and erecting dams (which is constructed with bamboo) to make artificial water course to their fields”⁵⁷.

3.5 Wooden Traditional Agricultural Tools:

The wood also plays an important role in the everyday life of tribal people in India which is not an exemption of Boro community. The Boro people use woods for different activities such as house construction, agricultural tools, making furniture, musical instruments, etc. They live in the midst of nature and utilize varieties of wooden tools in their day to day life. The main source of the Boro people is agriculture and they use various tools for agricultural works.

Such wooden tools are:

1. *Nangal* (Plough)
2. *Jungal*(Yoke)
3. *Roina*
4. *Beda*
5. *Hasini* (Rake)
6. *Hathura* (Wooden Hammer) and
7. *Mwswo gari* (Bullock Cart)

⁵⁷M.M. Brahma : *Identification of Existing Tribal Technologies Including Handicrafts and Their Problems*, Published in *Application of Science and Technology for Tribal Development*, ed. B.N. Bordoloi, 1988, pp.108-109.

The mentions above agricultural wooden tools or tools are described below:

3.5.1 *Nangal* (Plough):

It's one of the most common tool for the farmers of Boro community. They use it in tilling the soil to make a favorable condition for seed placement and plant the *Khwthiya*⁵⁸. This is done with a pair of bullocks or buffalos. It's made of wood (mainly Sal wood) and pitted with a share in the lower part of the plough. The basic components of the plough are a body with handle (Boro people called it *Nangal Muthi*), a beam *Dila* and a *Phal* (share).

The body of the plough is around 4-5 ft long, 1.5 ft thick in the middle, and its small thick size of the handle and in the lower part also small and flat size fitted with around 1ft long and around 1.5-inch width share. *Dila* (Beam) also made of wood it is around 3-4 m long 1.5 inches wide and 2.5 inches thick and it is fitted with the middle body of the plough to connect with *Jungal* (Yoke). (Fig. 3.20*Nangal*).It needs some skill in tilling with bullocks or buffalos hence operated by male farmers only. The use of life implement is based on the user of the tool and the cost is Rs. 1,200 – 1,500. It is found at market and the Boro farmers of the rural area have still used this tool⁵⁹.

⁵⁸*Khwthiya*: After placement the seeds (*Majili*), when it grows then unearth and plant, its call *Khwthiya*.

⁵⁹Review of Research Vol.-8, Issue-6, March 2019, P. 90



Fig. 3.20 Nangal (Plough)

The components of *Nangal* are as follows:

1. *Nangal*
2. *Dila*
3. *Phal*
4. *Muthi* and
5. *Khila*.

3.5.2 *Jungal* (Yoke):

The yoke is one of the most important and common tool for tilling the soil. It's used to join two bullocks or buffalos and make together with plough and yoke. The yoke is generally made of sal wood but now a day; Boros are made by bamboos also. It's around 5 ft length and 1 ft thick (Fig. 3.21 *Jungal*). The

components of the yoke are *Soljuri* (one fair jute ropes at both sides the yoke) it's used to join the two bullocks or buffalos by tying, *Lengra* (round rope) it's also used to join plough and yoke. It is also operated by male farmers only. The average life of implement is about 8-10 years and the cost is Rs. 500 – 800 per one.⁶⁰ It is also found at market and the Boro farmers of the rural area have still used this tool because without this tool the tilling of the *Nangal* is impossible for the Boro farmers.

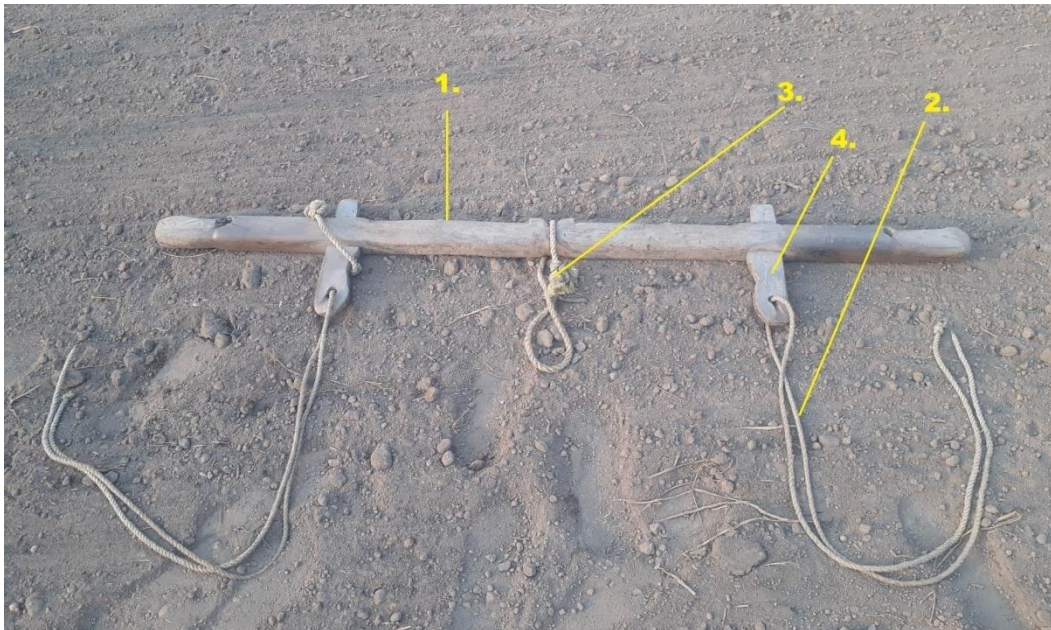


Fig. 3.21 Jungal (Yoke)

The components are:

1. *Jungal*
2. *Soljuri*
3. *Lengra* and
4. *Soljuri gon.*

⁶⁰Review of Research Vol.-8, Issue-6, March 2019, P. 90

3.5.3 *Roina*:

This tool is used to collect the seeds after thrashing and drying. *Roina* is made of wooden and bamboo handle. The design of the working area is semi-circle and flat made of wood. It's around 1 inch thick, 1 ft wide and 2 ft length and the handle is made of bamboo, it's around 6 ft long and around 4 inches thick (Fig, 3.22 *Roina*). This tool is operated by both male and female farmers and the average life of implement is about 10 years. It is not found at markets and the Boro farmers have still used this tool⁶¹.



Fig. 3.22 *Roina*

The components are:

1. *Roina* (Operation area) and
2. *Roina akhai* (Handle).

⁶¹Review of Research Vol.-8, Issue-6, March 2019, P. 92.

3.5.4 *Beda*:

This tool is used to remove the weeds from crops. It looks like *Hasini* (big rake) but it is used by the help of bullocks or buffalos. The operation area of *Beda* is *Dangur* with *Hathai* (Teeth). The *Dangur* is made of wood and having a horizontal portion and formed by teeth of bamboo thin or thick depending on usage made of bamboos. The wide of the *danger* is around 6 inch and thick is around 4 inches and the length around 5 ft and the teeth are around 3 inches thick and 6-inch length (Fig. 3.23 *Beda*).

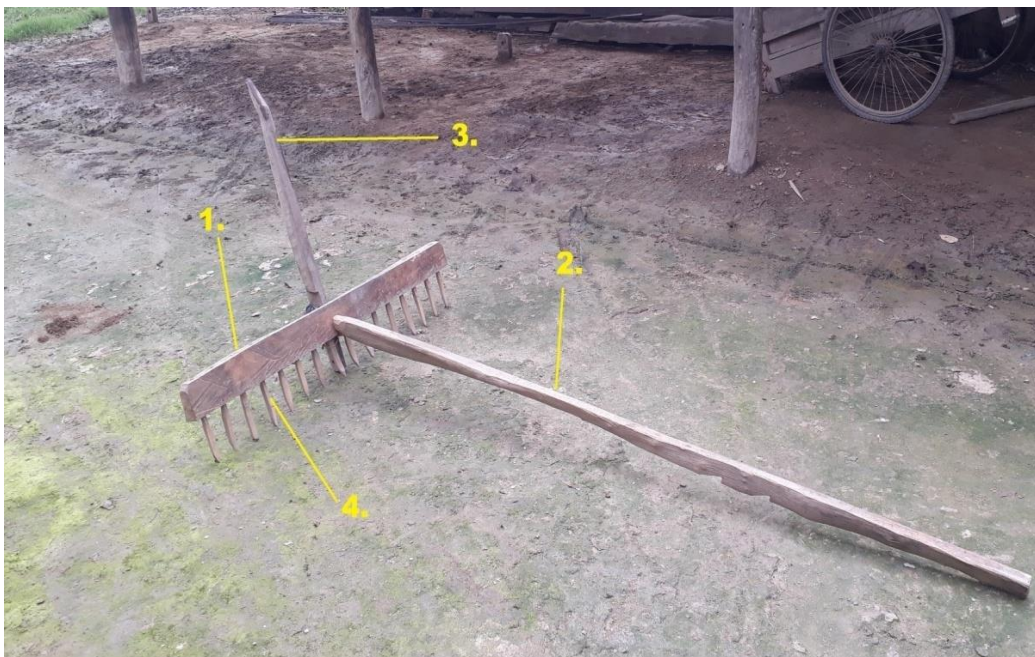


Fig. 3.23 *Beda*

And the *Dila* and *Muthi* are also components of *Beda*. These are also made of wood and the *Dila* is around 8 inches thick 6 ft length and the *Muthi* handle is also made by wood; it is 4 ft high and around 8 inches thick with the band at the end of the upper side. The Boro farmers are still used it to remove the weed from their crops. It is operated by male farmers only and the average life of implement

is about 10 years. It is not found at markets, the farmers are made it at home as their required and the users of this tool are decreasing from the Boro society.

The components of the *Beda* are as follows:

1. *Beda dangur*
2. *Dila*
3. *Muthi* (Handle) and
4. *Beda hathai* (Teeth).

3.5.5 *Hasini* (Rake):

The *Hasini* is also one kind of weeds or jungle remover tool. The Boro farmers are used to collect the weeds or jungle in the time of soil preparation seed placement. It is made of wood and bamboo. The operation area of *Hasini* is also *Dangur* with *Hathai* (teeth). The *Dangur* is made of wood and having a horizontal portion and formed by bamboo teeth thin or thick depending on usage made of bamboos. The wide and thick of the *Dangur* are around 3 inches and 2 inches and length are around 2 ft and the teeth are around 2 inches thick and 6-inch length. It has a *Bikhung* (Handle) made of bamboo or branch of wood it is around 4 inches thick and around 6 ft length (Fig. 3.24 *Hasini*). It is operated by both male and female farmers. The average life of implement is around 8 years and it is not available at markets. They made it themselves at home and the Boro farmers have still used this tool.



Fig. 3.24 *Hasini* (Rake)

The components of the *Hasini* are as follows:

1. *Hasini dangur*
2. *Hathai* (teeth) and
3. *Hasini bikhung* (handle).

3.5.6 *Dongphangni Hathura* (Wooden Hammer):

This is a soil breaker tool. It is made of a piece of wood with bamboo or wooden *Bikhung* (Handle). The operation area is around 1 ft and around 10 inches thick and *Bikhung* is around 3 inches thick and length is around 3 ft length (Fig. 3.25 *Dongphangni Hathura*). It is also operated by both male and female farmers and this tool is not found in the markets.



Fig. 3.25 Dongphangni Hathura (Wooden Hammer)

The components of *Dongphangni Hathura* are:

1. *Hathura* and
2. *Hathura Bikhung*(Handle).

3.5.7 Mwswo Gari (Bullock cart):

This is one kind of transportation tool. It is made of wood, bamboo, and irons together and as a source of transportation was developed a long time ago to help farmers for cheap the crops and one of the simple transportation. *Mwswo Gari* (Bullock Cart) is used by a pair of bullocks or buffalos and its main work is to carry the paddy from the paddy field to the owner's house and also to carry some other loads like jute, betel nut, firewood, etc. This is widely used by the

Boro community from time immemorial. The bullock cart is around 14 ft length and wide is around 7 ft with narrow in the front side (Fig. 3.26 *Mwswwo Gari*).

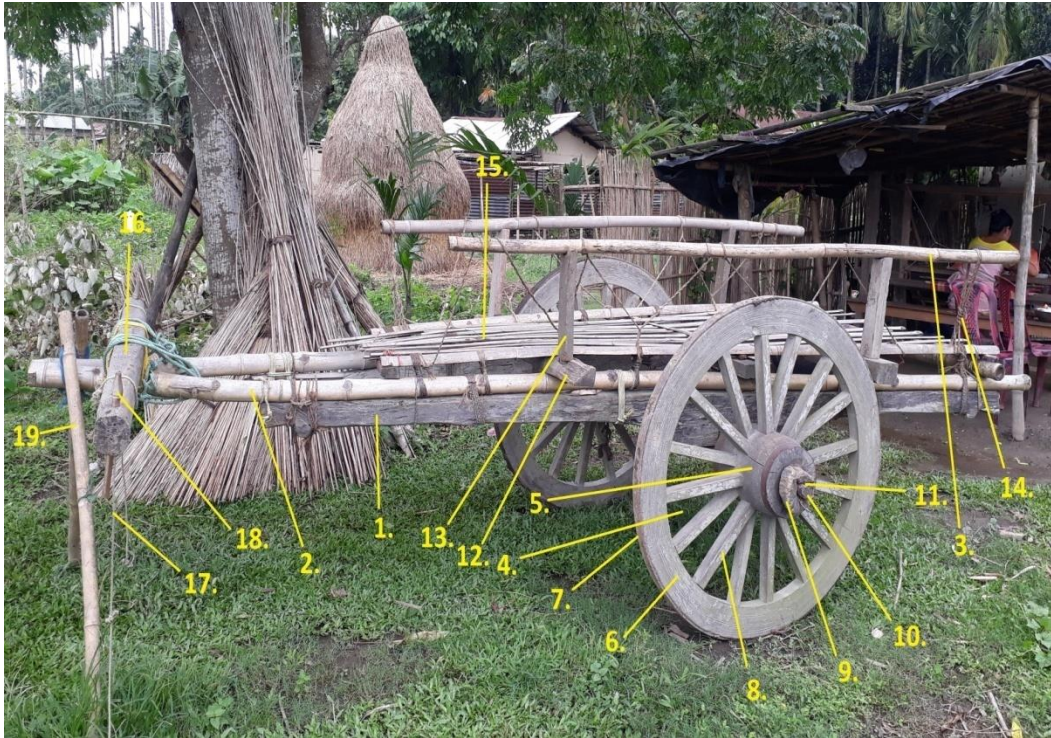


Fig. 3.26 *Mwswwo Gari* (Bullock Cart)

It is made of a variety of components. The two wheels of the bullock cart also made of wooden but these days instead of wooden wheels, modern tiers are used and the wooden wheels bullock cart is decreasing from the Boro farmers. *The Mwswwo Gari* is not found at the market, only the *Sakha* (wheel) and *Duhur* found at the market except these two components every component of the *Mwswwo Gari* are made by themselves at home. The two wheels of the bullock cart also made of wooden but these days instead of wooden wheels, modern tiers are used and the wooden wheels bullock cart is decreasing from the Boro farmers. The average life of implement is around 15 years.

The components of the *Mwswwo gari* (Bullock cart) are as follows:

1. *Gari nangal*
2. *Gari bombhas*
3. *Gari danda*
4. *Gari sakha*
5. *Gari dumsu*
6. *Gari Khamphlai*
7. *Gari hal*
8. *Gari aithing*
9. *Gari daphla*
10. *Gari duhur*
11. *Gari khila*
12. *Gari daham*
13. *Gari gon (Sungthagra)*
14. *Gari dirung*
15. *Gari hwrkhla*
16. *Gari jungal*
17. *Gari soljuri*
18. *Soljuri gon.*
19. *Gari sepsa.*

Among these components of the *Mwswo Gari* (Bullock cart), the *Gari Bakhos* is also mentionable it is placed inside the *Gari* which is covering the *Gari Duhur*⁶².

⁶² Informant: Sonen Narzary, age 50 years, Dwimuguri, P.O. Karigaon, Dist. Kojrajhar

Besides, wood is also being used as Naodra (Wooden Culvert) to transfer water for one place to another. They made the *Naodra* by own idea as their required to transfer water to the paddy field too.

3.6 Iron's Agricultural tools:

The farmers have also used some iron's tools in agricultural work. According to the History of Agriculture in India, "In the later Vedic texts (c. 3000 -2500 BP) there are repeated references to agricultural technology and practices, including iron implements; the cultivation of...cereals, vegetables, and fruits; the use of meat and milk...and animal husbandry"⁶³.

The same thing is happening in Boro society. Since the time immemorial they used the iron's agricultural tools, which are made of iron. The Boro farmers have also used it as their own tools. They use different kinds of iron's tools in agricultural works. Boro people have easily accepted the iron's tools in their society, because of the iron's tools are made easier the works, as well as the work, can be completed in a short time period.

The used of iron's tools are reflected in the Boro folk-tales, the folk-tales is *Duima Duisa ni Khorang* (How the rivers were made), in this folk-tales, the used of *Khodal* (Hoe) and *Sikha* (Knife), are found.⁶⁴

Thee used of iron's agricultural tools of the Boros are:

⁶³https://en.wikipedia.org/wiki/History_of_agriculture_in_the_Indian_subcontinent

⁶⁴ J.D. Anderson. *A Collection of Kachari Folk-Tales and Rymes*, Shillong, 1895. P. 9

1. *Khodal* (Spade)
2. *Ruwa* (Axe)
3. *Sikha Gobda* (Big knife)
4. *Sikha Khongkhai*
5. *Khasi* (Sickle) and
6. *Khontha* (Spud).

3.6.1 *Khodal* (Spade):

The spade is used by the Boros, it is called by them *Khodal*, it has a long handle call by them *Khodal Bikhung* and it is made of wood (especially sal wood).



Fig. 3.27 *Khodal* (Spade)

The working area of the *Khodal* is made up of iron; the design is a square or rectangular shape. The working area iron is around 7 inches wide and around 10-inch length (Fig. 3.27 *Khodal*). The main work of this tool in agriculture is *Ali Khwnai* (plotting in the paddy field to preserve water) and to cut weeds or weeds roots, to bury organic matter (chipped weeds, manure, etc) and also to open the soil up for easy water penetration. Only the working area was available at market and *Bikhung* (Handle) is made by them and the cost is around Rs. 200 per one. But now a day the *Bikhung* (handle) also found sometimes at the market and its cost is around Rs. 100 per one and it is not available at markets. It is mostly used by male farmers and the Boro farmers are still used this tool⁶⁵.

The components of the *Khodal* are:

1. *Khodal* (spade) and
2. *Khodal bikhung*.

3.6.2 *Ruwa* (Axe):

The axe is also used by the Boros. It is called by them *Ruwa*. It is used to cut the wood in the time of preparation of the paddy field and also used to cut the roots in the time of tilling. The operation area of *Ruwa* is around 4 inches wide and length is around 6 inch it is made by iron and it has a long handle call by them *Ruwa Bikhung* around 3 ft length and 7 inches thick (Fig. 3.28 *Ruwa* (Axe)). It is made by *Ruwa* split bamboo and it's specially *Ouwa Burkha* scientific name

⁶⁵Review of Research Vol.-8, Issue-6, March 2019, P. 91

is *Bambusa balcooa Roxb.* Only the *Ruwa* (axe) is available in the market, the cost is around Rs. 200 and the *Bikhung* is made by them at home.



Fig. 3.28 Ruwa (Axe)

It is operated by only male farmers and the average of life implement is around 12 years. It is still used by the Boro.

The components of *Ruwa* are:

1. *Ruwa*
2. *Ruwa bikhung* (handle).

3.6.3 Khasi (Sickle):

A sickle is a harvesting tool. It's used to harvesting crops like cereal, pulses, millets, and grasses. The sickle is made up of iron and handle is made up

of wood. The working area of sickle has flat iron's band blade around 1 ft length and 1.5-inch width. The handle is the around 10-inch length and around 2.5 inches thick (Fig. 3.29 *Khasi*)⁶⁶.



Fig. 3.29 *Khasi* (Sickle)

Only the *Khasi* and *Biri* are available in the market, the cost of the *Khasi* is around Rs. 100 and *Biri* are Rs. 10 to 20 and *Khasi Bikhung* is made by them at home by wood. It is operated by both male and female farmers and the Boro farmers are still used this tool.

The components of *Khasi* are:

1. *Khasi* (Operation area)
2. *Khasi bikhung* (Handle) and
3. *Khasi biri*.

⁶⁶Review of Research Vol.-8, Issue-6, March 2019, P. 91

3.6.4 *Khontha* (Spud):

Khontha is a digging tool trowel or spud. It is used for digging and removed the weeds from the crops or cultivation. *Kontha* is a hand tool, made up of iron tool with a handle made of wood.



Fig. 3.30 *Khontha* (Spud)

The working area is plat iron around 4 inches wide and around 6-inch length and handle is around 3 inches thick and 6 inch in length (Fig. 3.30 *Khontha*). This tool is found at the market and the cost of this tool is around Rs. 60. It is used by both male and female and the average of life implement is around 8 years. Boro farmers are still used in this tool.

The components of the *Khontha* are:

1. *Khontha* (operating area)
2. *Khontha bikhung* (handle) and
3. *Khontha biri* (plat iron ring).

3.6.5 *Sikha* (Knife):

The knife is used by the Boros its call by them *Sikha*. The Boros have used verity kinds of *Sikha* (knife). Especially the *Sikha Gobda*, *Sikha Khongkhai*, and *Sikha Khukhri* are used by them for the purpose of agriculture.

3.6.5.1 *Sikha Gobda* (Big knife):

The *Sikha Gobda* is a big knife. The Boros have used it also to cut the wood in the time of preparation of paddy field and used to cut the roots in the time of tilling and also it is used in harvesting operation, especially for cutting out sugar cane plant, etc.



Fig. 3.31 *Sikha gobda* (Big knife)

The operation area of *Sikha Gobda* is around 3 inches wide and length is around 1 ft, it is made by iron and it has a handle called by them *Sikha Bikhung*, it's made by wood (Wooden handle) around 8-inch length and 6 inches thick (Fig. 3.31 *Sikha Gobda*). Only the *Sikha Gobda* and *Sikha Biri* are available in the market, the cost is around Rs. 150 and the *Bikhung* is made by them at home by wood. It is operated by both male and female farmers. Now a day the use of *Sikha Gobda* by the Boros are decreasing and now a days instead of this *Sikha Gobda* the Boros are mostly used *Sikha Khukri* (Fig.3.32 *Sikha Khukhri*).



Fig. 3.32 *Sikha khukhri*

The components of *Sikha Gobda* are:

1. *Sikha gobda* (operation area)
2. *Sikha bikhung* (handle) and
3. *Sikha biri* (flat iron ring).

And also the components of *sikha khukhri* are:

1. *Sikha khukhri* (operation area)

2. *Khukhri bikhung* (handle)
3. *Biri* (flat metal ring)
4. *Khukhri bikhob* (wooden cover) and
5. *Khagra* (rope or cloth for the tie).

3.6.5.2 *Sikha Khongkhai*:

This is also another kind of knife (cutting tool), the *Sikha Khongkhai* is mostly used tool as compare to other kinds of *Sikha*. The Boros use it to cut the jungles in the time of preparation of paddy field and used to cut the weeds in paddy field and also it is used in harvesting operation, especially for cutting out sugarcane plant, etc. The operation area of *Sikha Khongkhai* is around 1.5 ft long and wide is around 2 inches, it is made by iron and it has a handle called by them *Sikha Bikhung*, it's made by wood (Wooden handle) 4 inch thick and about 2 to 4 ft length as their required (Fig. 3.33 *Sikha Khongkhai*). Only the *Sikha Khongkhai* and *Sikha Biri* are available in the market, the cost of the *Sikha Khongkhai* is around Rs. 110 and *Biri* is Rs. 10 to 20 and *Sikha Bikhung* is made by them at home by wood. It is operated by both male and female farmers and the Boros have still use this tool.

The components of *Sikha Khongkhai* are:

1. *Sikha khongkhai*
2. *Sikha bikhung* and
3. *Sikha biri*.



Fig. 3.33 Sikha Khongkhai

From the above discussion it clear that, the use of iron's traditional agricultural tools have a significant role in day to day life of the Boros. They produce their food by cultivating and they cultivate the crops by using these tools.

CHAPTER – 4

CONCLUSION

The Boros, have been the primary aboriginal people of Assam. They have a rich culture and tradition. Since time immemorial they have been living on the various natural resources and later they mostly depended on cultivation. During cultivation they use tools made out of natural resources such as bamboo and wood. But for preparing those tools, they have also been using some other components such as Iron, rope, and Cane collectively. Those traditional tools are known as traditional agricultural tools, because they are used in agricultural work.

In preparation of these agricultural tools; bamboo, wood and iron play an important role. Based on the components, these tools can be grouped into Bamboo tools, wooden tools and Iron tools. But, even if it is divided into three, the use of some other items have also been found during the study e.g. clothes and ropes. Notably in certain tools it has also been found the use of Bamboo with Iron, Bamboo with Wood, and Wood with Bamboo and Wood with Iron.

In preparation for the following agricultural tools of the Boro, the bamboo takes the main role. There is found maximum bamboo tools from among the agricultural tools of the Boros. These are:

1. *Laothi* (Stick)
2. *Khwthiya Bathi* (Seedling carrier tool)

3. *Khophri* (Rain Protector)
4. *Haikhongsi*
5. *Khokhla* or *Mwswokho* (Mask of Bamboo)
6. *Sulabari* (Carrier tool)
7. *Baokha* (Carrier tool)
8. *Sukhen* (Grain separator)
9. *Dahra* (Mat)
10. *Gon* or *Laothi*
11. *Khada* (Basket of Bamboo)
12. *Duli* (Grain store)
13. *Songrai* (Winnower)
14. *Sandri* (Sieve)
15. *Sandanga* (Large sieve) and
16. *Mwigong khada* (Vegetable basket).

It is also been noticed that Wood also play an important role in the preparation of the following agricultural tools of Boros:

1. *Nangal* (Plough)
2. *Jungal*(Yoke)
3. *Roina*
4. *Beda*
5. *Hasini* (Rake)
6. *Hathura* (Wooden Hammer) and
7. *Mwswogari* (Bullock cart)

And also the Boros are using various agricultural tools which are made of iron. In the preparation of the following agricultural tools, the iron is also taken the main role. These are:

1. *Khodal* (Spade)
2. *Ruwa* (Axe)
3. *Sikha* (Knife)
4. *Khasi* (Sickle) and
5. *Khontha* (Spud).

Major Findings:

- The study reveals that the Boro people use the traditions tools in their cultivation such as *Nangal* (Plough), *Jungal* (Yoke), *Roina*, *Beda*, *Hasini* (Rake), *Hathura* (Wooden Hammer), *Mwswogari* (Bullock cart), *Laothi* (Stick), *Khwithiya Bathi* (Seedling carrier tool), *Khophri* (Rain Protector), *Haikhongsi*, *Khokhla or Mwswokho* (Mask of Bamboo), *Sulabari* (Carrier tool), *Baokha* (Carrier tool), *Sukhen* (Grain separator), *Dahra* (Mat), *Gon or Laothi* (long stick), *Khada* (Basket of Bamboo), *Duli* (Grain store) *Songrai* (Winnower), *Sandri* (Sieve), *Sandanga* (Large sieve) and *Mwigong khada* (Vegetable basket), *Ruwa* (Axe), *Sikha* (Knife), *Khasi* (Sickle) and *Khontha* (Spud).

All the above mention agricultural tools are used by the Boros and these all are made by themselves at home from natural resources.

Therefore, it can be said that the Boros are truly rich in their own Material Culture.

- In the past, Boro people had totally depended on traditional home-made tools as there was no technological advancement. But, at present, they have started using the new technological devices such as Tractor, Power Tiller, which are cover the works of some tools such as *Nangal* (Plough), *Jungal* (Yoke), *Mwi* (Harrow), *laothi* (Stick), *Mwswogari* (Bullock Cart), *etc.* as well as there are some Plastic and Rubbers tools also influenced in their cultivation and due to which the dependency level on the use of traditional tools have reduced. Thus, it proves that still, Traditional Agricultural Tools are useable. It is due to the pressure of labor shortages, a short span of time for cultivation it has become the challenge for the Boro people to use the traditional tools.
- Now, it has been found that in almost all the traditional agricultural tools Bamboo have been used and for which one can argue that Bamboo is the primary source of Traditional Agricultural tools of the Boros.

Suggestions:

- For the preservation of the traditional method of preparing Traditional Agricultural tools, the steps are needed to be taken at different levels such as individual, governmental and academic.
- It is important to take initiative in preserving the traditional agricultural tools as a symbol of primitive tools and techniques which are being used in agricultural field. The local farmers, local intellectuals, government and non government organizations should take initiative on it.

- Skill training for the young generation is necessary to prepare Traditional Agricultural Tools.
- Awareness and training program can be taken.
- New course or chapters can be included in school curriculum in any cultural studies subject as “Traditional Agricultural Tools”.

Future Study:

- The study on Traditional Agricultural Tools of the Boros can be done by extending the present area.
- The study on Traditional Agricultural Tools of the Boro can be studied again from Ethnographic Method.
- Comparative study can be done on Traditional Agricultural Tools.
- The study on Traditional Agricultural Tools of the Boro can be studied again in Influenced Method.

INFORMANTS

Name	Sex	Age	Address
Nomol Baro	Male	63	Village: 2. No. Nachansali, P.O.: Nachansali, District: Udalguri, BTC (Assam)
Bipin Basumatary	Male	60	Village: New Balajan, P.O.: Karigaon, District: Kokrajhar, BTC (Assam)
Bargosi Borgoyary	Male	60	Village: Thaigerguri, P.O. Gurubasha, District: Chirang, BTC (Assam)
Rojoni Narzary	Male	56	Village: New Basbari, P.O.: Karigaon, District: Kokrajhar, BTC (Assam)
Gaorao Boro	Male	55	Village: New Balajan, P.O.: Karigaon, District: Kokrajhar, BTC (Assam)
Risob Basumatary	Male	55	Village: New Balajan, P.O.: Karigaon, District: Kokrajhar, BTC (Assam)
Binoy Basumatary	Male	50	Village: New Basbari, P.O.: Karigaon, District: Kokrajhar, BTC (Assam)
Somor Owary	Male	45	Village: New Balajan, P.O.: Karigaon, District: Kokrajhar, BTC (Assam)
Rwda Mushahary	Male	43	Village: New Balajan, P.O.: Karigaon, District: Kokrajhar, BTC (Assam)
Gunesor	Male	39	Village: New Balajan, P.O.: Karigaon,

Narzary			District: Kokrajhar, BTC (Assam)
Jaole Mushahary	Female	60	Village: New Balajan, P.O.: Karigaon, District: Kokrajhar, BTC (Assam)
Sonen Narzary	Male	50	Dwimuguri, P.O. Karigaon, Dist. Kojrajhar , Kokrajhar, BTC (Assam)
Dipali Boro	Female	50	Village: New Balajan, P.O.: Karigaon, District: Kokrajhar, BTC (Assam)
There Basumatary	Female	47	Village: New Balajan, P.O.: Karigaon, District: Kokrajhar, BTC (Assam)
Roben Baro	Male	47	Village: 2 No. Chenipara, P.O.: Purandia, District: Udalguri, BTC (Assam)
Rina Basumatary	Female	45	Village: New Basbari, P.O.: Karigaon, District: Kokrajhar, BTC (Assam)
Sonali Owary	Female	43	Village: New Balajan, P.O.: Karigaon, District: Kokrajhar, BTC (Assam)
Rupali Boro	Female	42	Village: New Balajan, P.O.: Karigaon, District: Kokrajhar, BTC (Assam)
Bolen Boro	Male	40	Village: 2 No. Nachansali, P.O.: Nachansali, District: Udalguri, BTC (Assam)
Brindabon Muchahary	Male	29	Village: Dwimuguri, P.O.: Karigaon, District: Kokrajhar , BTC (Assam)
Ronjon Basumatary	Male	27	Village: Dumbruguri, P.O.: Karigaon, District: Kokrajhar, BTC (Assam)

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