



TRADITIONAL AGRICULTURAL TOOLS OF BOROS: USED IN RICE CULTIVATION

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ABSTRACT :

The study is undertaken to identify various traditional tools used for rice cultivation of the Boro people. Agriculture is the main source of the Boro people to their livelihood. The Boro people are one of the aboriginal tribes of Assam. They cultivate mainly rice crop by using their own traditional tools, i.e Plough (Nangal), Yoke (Jungal), Harrow (Mwi), Stick (Laothi), Hoe (Khodal), Khwthiya Bathi, Sickle (Khasi), Baokha, Sukhen, Hasib, Khada, Sandanga, Songrai and Roina.etc. These are the main tools for rice cultivation and used to make those materials at home by themselves from natural resources i.e. Bamboo, woods and iron etc. The information was documented by using observation and discussion methods. In the study some traditional tools were identified and described.



KEYWORDS : Traditional tool, Agricultural practice & Tools for rice cultivation.

1.0 INTRODUCTION:

The Boros are the aboriginal people of Assam, coming from the greater Mongoloid race. They are now scattered all over the Assam and also neighbouring states like Nagaland, Arunachal Pradesh, West Bengal, and Meghalaya. They also live in neighbouring country also such as Nepal, Bangladesh and Bhutan. However, the majority of them are found on the northern bank of Brahmaputra valley in Assam. They have their own culture, language, literature and religion. The Boro People are generally cultivators. Apart from it they start farming, fishing etc. They cultivate mainly rice crop and they cultivate the crops by using their own traditional tools, i.e. *Plough (Nangal), Yoke (Jungal), Harrow (Mwi), Stick (Laothi), Hoe (Khodal), Khwthiya Bathi, Sickle (Khasi), Baokha, Sukhen, Hasib, Khada, Sandanga, Songrai and Roina etc.* They use variety of tools as per their requirements and use to make those materials at home by themselves from natural resources i.e. Bamboo, Woods, Iron etc. With these tools, they have been cultivating in their paddy field since time immemorial.

Now a day's technological devices are influencing on the traditional agricultural tools for which the use of traditional tools are decreasing day by day. The uses of the ethnic traditional tools are part and parcel of Bodo culture. But these are going to be extinct. So, we have to preserve and identify these as Bodo's culture, then we must keep alive Bodos traditional agricultural tools also as symbol of cultural identity.

1.1 Objectives:

- i. To focus the traditional agricultural tools of the Boros.
- ii. To identify and describe the features and structure of the agricultural tools.

iii. To highlight their traditional knowledge relating to agriculture tools in rice cultivation.

1.2 Significance of the study: This is an attempt to bring out the traditional agricultural tools that are used in rice cultivation of the Boros. The Boro people are cultivated the crops by using their own home made tools. Though the Boros had not authentic written documents on this view they had been maintaining their livelihood by cultivating with their indigenous traditional tools since time immemorial. But such traditional agricultural tools are shrinking from the Boro society due to the impact of modern technology. The proposed topic has great educative value that to be brought out through this research corpus.

1.3 Methodology: Descriptive and Analysis methods were applied in this proposed topic.

1.3 Sources of Data: This proposed topic has taken from primary and secondary sources.

1.4 Hypothesis:

1. The traditional agricultural tools are still useable in urban area of the Boro villages.
2. The traditional agricultural knowledge is decreasing from the Boro people.
3. Most of technological devices and tools are influencing in the field of traditional agriculture of the Boros.

2.0 RESULTS AND DISCUSSION:

The traditional agricultural tools used in rice cultivation of the Boros were identified and described below:

1. Plough (*Nangal*): It is one of the most common and useable tools for the farmers of Boro community. They use it in tilling the soil to make favourable condition for seed (*Maijli*) placement and plant the *khwthiya*¹. This is done with a fair of bullocks or buffalos. It is made of wood (mainly *sal* wood) and pitted with share in the lower part of plough. The basic components of the plough are body with handle (*nangal muthi*), a beam (*dila*) and a share. Body of the plough is around 4-5 ft long, 1.5 ft thick in the middle and its small thick size of handle and in the lower part also small and flat size fitted with around 1ft long and around 1.5 inch width share. Beam (*dila*) also made of wood its around 3-4 m long 1.5 inch wide and 2.5 inch thick and its fitted with middle body of plough to connect with yoke (*Jungal*). It needs some skill in tilling with bullocks or buffalos hence operated only by male labourers. Average life of implement is about 3 years and cost is Rs. 1,200 – 1,500 per one.



Fig. 1 Plough (*Nangal*)

2. Yoke (*Jungal*): Yoke is one of the most important and common tool for tilling the soil. It is used to join two bullocks or buffalos and make together with plough and yoke. Yoke is generally made of *sal* wood and bamboos. It's around 5 ft length and 1 ft thick. The components of yoke are *soljuri* (one fair ropes at both sides the yoke) it's used to join the two bullocks or buffalos by tying, *Lengra* (a round rope) it's also used to join plough and yoke. . Average life of implement is about 8-10 years and cost is Rs 500-800 per one.



Fig. 2 Yoke (*Jungal*)

¹ *Khwtiya*: After placement the seeds (*Maijli*), when it grows then unearth and plant, its call *Khwtiya*.

3. Harrow (Mwi): It's a clod breaker and soil planer tool to make favourable condition for seed (*Maijli*) placement. It is made of big split bamboo by dividing equally a piece of bamboo. It's around 5 ft length and 1-1.5 ft width and it was designed like ladder. The components of harrow are mainly rope and a beam (*mwi dangur*).

Rope is used for tie the harrow. The beam (*mwi dangur*) is also made of bamboo, it's around 3-4 m length and it's used to join with yoke. It's also operated only by male labourers. Average life of implement is about 5 years.



Fig. 3 Harrow (Mwi)

4. Stick (Laothi): Stick is also a common tool for every farmers of Bodo community. It is mainly made of bamboo and the length is around 3-4 ft and 1.5 inch thick as their required. The stick is used to drive bullocks or buffalos mainly in the time of tilling. . Average life of implement is about 3-5 years.

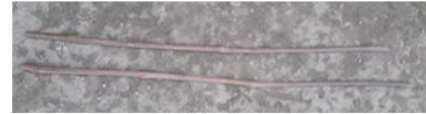


Fig. 4 Stick (Laothi)

5. Hoe (Khodal): Hoe is a tool for dig soil. It's made up of iron and wooden or bamboo handle. The hoe is flat iron's blade 8-10 inch wide and 1ft length. The handle is a thin wooden or bamboo and it's around 4-5 ft and around 3 inch thick. The hoe is used to make dam by digging the soil to preserve the water in the paddy field to make favourable condition for plant the rice. Average life of implement is about 12-15 years and cost is Rs. 300 per piece.



Fig. 5 Hoe (Khodal)

6. Khwthiya Bathi: It's a carrier tool. Made of bamboo and it's around 10 ft length and around 6 inch thick. It's used to carry the *kwtiya* by shouldering for plant in the paddy field. Average life of implement is about 1 year.



Fig. 6 Used of Khwthiya Bathi

7. Sickle (Khasi): Sickle is a harvesting tool. It's used to cutting the corn. The sickle is made up of iron and handle is made up of wood. The working area of sickle has flat iron's blade around 1 ft length and 1.5 inch width. Handle is around 10 inch length and around 2.5 inch thick. The average life of implement is about 7 years and cost is Rs. 100 per piece.



Fig. 7 Sickle (Khasi)

8. Baokha: Baokha is also a carrier tool. The *baokha* is made up of bamboo. It's a piece of split bamboo point of end in both side, around 7 ft length and around 4 inch thick. Mainly it's used to carry the corn by shouldering. After cutting the corn harvest with this tool to the thrashing court from paddy field. The average life of implement is about 5 years.



Fig. 8 Baokha

After harvesting the crops in the thrashing court from paddy field, they thrash (*mara hwnai*) the paddy by bullocks or buffalos. Some traditional material tools are useable in this traditional method thrash (*mara hwnai*). The tools are given below:

9. Sukhen: A hooked bamboo stick. It is used to make separate with grain and straw in the time of thrash and also this tool is useable for another works. The *sukhen* is around 7 ft long and 5 inch thick bamboo hooked in the one side of end. The average life of implement is about 10 years.



Fig. 9 Sukhen

10. Broom (Hasib): It is a very useable tool for Bodo people and this tool is made by thatch. This tool is used to gather the grain by sweeping when scattered in the time of thrash. This tool is a bundle of thatch. It's around 2 ft long and 6 inch thick bundle thatch. The average life of implement is about 4 months and cost is Rs. 20-30 per boundle.



Fig. 10 Broom (Hasib)

11. Large sieve (Sandanga): *Sandanga* 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 little hole with little piece of split bamboo like net. The average life of implement is about 3 years and cost is Rs. 150-200 per piece.



Fig. 11 Large sieve (Sandanga)

12. Winnowing pan (Songrai): *Songrai* is a winnowing tool, used to make separate with grain and seedless grain and also to make clean from dust. It's used with hand by blowing over the grain. This tool also made of bamboo and design is oval around 2.5 ft wide round twist together with little piece of split bamboo. The average life of implement is about 3 years and cost is around Rs. 200 per piece.

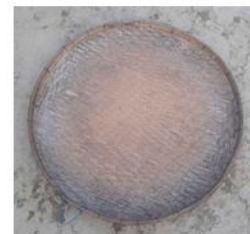


Fig. 12 Winnowing pan (Songrai)

13. Roina: This tool is used to collect the seeds after thrashing and drying. *Roina* is made of wooden and bamboo handle. The design of working area is semi circle and flat made of wood. It's 1 inch thick, 1 ft wide and 2 ft length and handle is made of bamboo, it's around 6 ft long and around 4 inch thick. The average life of implement is about 10 years.



Fig. 13 Roina

14. Basket (Khada): It's a kind of basket made by twist together with split bamboo and overlap with cow dung. *Khada* is used to carry the grains inside grain store (*bakri*) after harvesting the crops. The average life of implement is about 3 years and cost is around Rs. 70-100 per piece.



Fig. 14 Basket (Khada)

3.0 CONCLUSION:

At the present the traditional tools are decreasing as well as the making knowledge also hiding from the Boro society, due to influence of technological tools and devices but the traditional tools used in rice cultivation are still useable in rural area of the Boro villages. The Boro Famers are cultivating rice crop easily by using these tools. Without spending their money in buying technological tools and devices they can cultivate easily by their own homemade traditional tools in rice cultivation. It is

prepared by highly sophisticated techniques from the natural resources and still these tools are useful among the Boro farmers of the rural area. But the maximum of these tools are still not available in the market. By using the modern wisdom, these traditional implements need to be standardized keeping in mind the economy of the rural poor farmers. Proper designing in accordance with the farmers' requirements will surely popularize these tools and implement in the near future.²

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² Indian journal of traditional knowledge, Vol. 8(2), April 2009