

## CHAPTER V

### IMPACT OF MODERNITY ON TRADITIONAL TOOLS AND TECHNOLOGY OF THE BODOS

In the preceding chapters discussions have been made at length, about the traditional tools and technology of the Bodos. This chapter focuses the impact of modernity on the traditional tools and technology of the Bodos as a result of the coming of more advanced cultural groups which brought about social changes resulting in modernity.

Human society is changeable and bound to change at various levels. Modernity challenges the existing traditional norms, practices, values and institutions. The impact of modernity in society brings about changes in both material and non-material. The core of modernism is “Make it new”. The last part of 19<sup>th</sup> or the first decade of the 20<sup>th</sup> century marks the impact of modernity in every sphere of human life, irrespective of community or nation. The tribes of Assam were not exceptional from the impact of modernity.

Bodo society of Assam, due to the impact of modernity changed their culture and their way of living. Besides several factors the transformation within the Bodo society was due to the advent of Brahma dharma, Christianity, urbanization, industrialization, introduction and implementation of tribal community development schemes, democratic set up of the nation and new education policies of the government, and the impact of science and technology transformed the Bodo Society.

In the 19<sup>th</sup> century, the varying trends in social outlook of the Bodos could be visualized. With the preaching of Gurudev Kalicharan Brahma, the traditional religious philosophy of the Bodos began to transform. Therefore larger sections of the Bodos followed the *Vedic Sanatan Dharma*, which brought about social revolution among the Bodos of Kokrajhar district. Under the leadership of dynamic personality of Gurudev

Kalicharan Brahma, a movement of total transformation in outlook in social, religious, political, economic and educational fields took place. As a result of education and social reforms, the Bodos became culturally and educationally more advanced and took over the leadership of the socio-political life. And along with socio-political transformations socio-religious transformations also took place in the livelihood pattern of the community.<sup>1</sup>

## **IMPACT ON DEFENSE AND HUNTING**

Bodos these days construct concrete walls around their house compounds and gates for defensive purposes. Traditional methods of constructing fencing by making ditch or fencing made of betel nut leaves, *ekra* reed, jungle grass or split bamboos and *hankla* (gates made of bamboo pipes) are hardly seen and are not very common sight these days, especially in town areas.<sup>2</sup>

The traditional weapons of the Bodos are no longer in use for the purpose of defense and offense. Swords and shields are used in religious occasions only. Today the responsibility of protecting the civilians have shifted to the government. Earlier the Bodos used local made guns in order to protect themselves but they have been replaced by modern licensed guns.<sup>3</sup>

The community-hunting is fast disappearing, as hunting is prohibited. Yet it is being reported that sometimes an individual or collective hunting is practiced as a hobby for enjoyment and refreshment of mind of the people. Bodos still carry out the same basic principles for trapping, such as camouflage, concealment, constricted locality, attraction and obstruction to alternative routes. The indigenous technologies and methods for hunting animals and birds, such as by netting and spiking are hardly in use today. Noosing is still carried out with readymade market bought traps made of iron.<sup>4</sup>

At present trapping and hunting are rare in practice, though in early stages of development, it contributed towards maintaining ecological balance, as it provided alternative to the poor diet of the people and it also helped to check the movement of the birds and animals which were harmful to the crops. The reason for disappearance of the

trapping and hunting activities are due to the growth of human population. They have encroached the natural habitats of the wild birds and animals. The use of modern weapons such as guns have also reduced the wild birds and animal population. The few that are found in the neighbourhood are further pushed to the parks and zoos and traps to the museums.<sup>5</sup>

## IMPACT ON AGRICULTURE

With the advent of modernity modern tools and technology made their inroads among the Bodo farmers. Modern tools such as weeder, duster, sprayer, tractor, power tiller, walking tractor, tube-well-water-supply, modern plough such as board plough, disc plough, shallow plough and subsoil plough are in use. Though the traditional agricultural tools of the Bodos like wooden plough, spade, harrow, spike-teeth harrow, chopper, digging-hoe, straw cutter, etc. are still in use but are reformed and to a limited extent. For land clearing tool *dangur* (rake) made of iron called as *lohani dangur* (factory made rake out of iron) is used. For preparing the soil, they use tractor widely for agricultural purposes. The wheels of a tractor are designed in such a way that it can work easily even in floods. Power tiller operated with handles helps in horticulture and ornamental work. Modern plough used by the Bodos consists of a blade, fence, plough, bead, wheel and handlebar. This helps in cutting and leveling the land. In order to deep open the soil, concave disc ploughs are used and to remove the top soil, shallow ploughing is done and to remove the soil depth subsoil ploughing is done. Now *gandri* or *dangan* (leveler) made of iron are used for levelling the soil. For the purpose of sowing, the farmers use *khopri* (wicker hat) made of split bamboo and in between the split bamboo plastic piece is placed. It protects the farmers from the rain or the sun. For the purpose of water-lifting, water pump, tube well etc. are used. To break up the parts of cultivable land metal teeth and the latch attached to tractor are used. Hand spray which can be placed at the back of the sprayer is used. Machines are used for the purpose of sieving, winnowing and grinding grains. Weighing machine is used to weigh grains. In order to maximize the agricultural products they use chemical fertilizers and pesticides. For transportation of fertilizers or needed farm products to their farms and for the supply of agricultural products to the markets, tractors and other modern means of transport are used. At present concrete irrigation canals are being built.

Traditional practice of one- year one-crop pattern has changed and the Bodos have taken up the practice of cultivating *asu* (a variety of rice) crop widely. The varieties of rice are cultivated in addition to *maisali*, *asu* and *baowa*, like chinese rice etc. The cultivation of areca nut is taken up as a commercial plan by the Bodo cultivators. Tea and rubber plantations are also taken up by the Bodos at present for commercial purposes. They have learnt about the cooling facilities and the cold storage houses, where tomatoes and other perishable crops are kept fresh for selling.<sup>6</sup>

Agriculture Department of the Assam government has promoted the use of scientific methods in cultivation, with the motto “Agriculture cannot wait”. So priority was given to distribution of improved seeds, fertilizers, creation of irrigation facilities, increase production of the food grains, extension of the cultivable area, double cropping, improved agronomic practices, selective mechanization and improved practices such as strip-cropping and log-bunding. All this is to assist the progressive farmers in modernizing their cultivation. In horticultural, nurseries were set up in Kokrajhar district for supplying seeds of good quality.<sup>7</sup> For soil testing, laboratory was established at Kokrajhar.<sup>8</sup> The agriculture department of BTC has taken up measures for increasing agricultural production and productivity, which have contributed in increasing agricultural production among the Bodos as well as others. It promoted self-employment, established agro-based industries, deputed officers and farmers for exposure to Horticulture Research Institute for training in modern technologies in plantation. It also organized awareness training program on integrated pest management, distributed high yielding varieties of rice seeds, pulses and oil seeds, promoted engineering wing by distributing tractors, power tillers and pumps, manufactured improved agricultural implements to be sold at 50 percent subsidy, promoted mechanized cultivation, set up community irrigation project (Kokrajhar district, 2005-2006) and constructed agricultural guest house at Kokrajhar.<sup>9</sup>

## **IMPACT ON FISHING**

Nothing much has changed in the fishing tools and technology of the Bodos and they still go for individual fishing, as well as community fishing. Fishing still holds great socio-cultural importance in the Bodo society. But as a result of modernity,

making of fishing gears by the Bodos is decreasing and most of the fishing gears which the Bodos used to make are no longer made by them. They have begun to use different tools available in the markets. The concept of a Bodo man without the ability to make the basic fishing tools for himself is getting lesser importance in the Bodo society.

The technologies of fishing are still the same, but the tools are now refined and the materials used for making those tools have changed. In line with fishing technology, the braid are made finer and stronger. The fishing hooks have also been made sharper.

Bodos these days use *mushari je* (a kind of encircling net) for catching fishes in deep water throughout the year, except in monsoon season. This net measures 40 feet in length and 30 feet in width, which is expanded by tying 3-4 nets of rectangular shape according to the size of the area for fishing. The size of the mesh of the net is 0.7 cm; while at the bottom it measures 2 cm for 4-5 rows and the floaters are attached to the top making it possible to remain in stretched form to visualize the area covered by the net. It can cover approximately 30-40 feet distance, depending on the number of nets tied together. It takes 3-4 hours to complete one single operation.<sup>10</sup>

The Bodos while hunting big fishes with big knives in shallow water use torch light these days instead of lantern or open lamp for attracting or blinding the fishes and frogs. They hit and cut across the body and catch.

For dewatering method of fishing, these days the Bodos use *chilli* (water-lifter), where the long handle of the water- lifter is still made of bamboo with the working area now made of plastics and even tin (drum or tin of mustered oil). The plastic ropes are tied on both sides of the tin by making holes in it. Two persons are employed to hold the rope on both the sides and swing it for dewatering by standing, and throwing the water to scoop net with “V” shaped fixed frame, which is placed at a particular place where fishes get stuck in the net. Water pumps are also used for the purpose of dewatering for fishing.<sup>11</sup>

At present, the Bodos fish on commercial scale. A few have started using illegally particular electric tools for fishing which is harmful to the users and also to nature as electric fishing can generate high voltage current in the water. This type of killing the fishes reduces the number of fishes and affects the ecological balance.

Fishing, an age old tradition of the Bodo society has developed a lot as the result of the modernism. The BTC authority has taken up development schemes in pisciculture such as development of farmer's pond, development of community tanks, development of derelict water bodies, promoting fish rearing and introduction of quality fish seed etc. All these have provided an important source of self-employment and promoted economic upliftment of the Bodos.<sup>12</sup>

## IMPACT ON DOMESTIC TOOLS

The domestic tools or articles used by the Bodos have undergone great amount of change due to the impact of modernity, even though in some areas for generations together traditional domestic tools or articles are still in use. R. N. Mosahary said that based on the village survey monograph near Kokrajhar town at Titaguri-Jonagaon by E. H. Pakyntein in the census of India (1961) that out of forty-nine households in a village, seventeen possessed chairs, nineteen possessed tables, eighteen possessed stools, twenty possessed benches, fourteen possessed bed stands, nine possessed mirrors, five possessed *alnas* (cloth stands), twenty seven possessed hurricane lanterns, one possessed gramophone, six possessed torch lights and six possessed bicycles.<sup>13</sup>

Today they use many modern articles such as furniture, utensils and electronic gadgets for domestic purposes. The mixer and grinder for grinding *onla* (rice powder), *amao* (rice cake), spices, *haani sobai* (black lentil) and for grinding and mixing local-made herbal medicines are commonly used. They use modern furniture (*sofa*) made of wood or many other modern materials for sitting and for entertaining guests. Dining chairs and tables made of woods and other durable materials are commonly found in the Bodo families. Modern innovative metal pipes, steamroller and chillum tube pipes are used by the Bodo smokers. Rice is grinded in mills. The richer ones use many kinds of modern made cupboards made of woods, plastic, steel, ply board, etc. for keeping valuable articles safe and secure. The modern ceiling fan, table fans, coolers and air conditioners along with traditional hand fan are all used by the Bodos. Modern containers made of steel, aluminum; plastic and china clay are used for the purpose of keeping and carrying grains, fruits, vegetables, etc. Modern designed showcase, tables, rack, etc. are used for keeping utensils and other kitchen articles. Modern *palong* (beds

with stands) made of woods, steel, ply board, etc. are now in use. They use plastic rope along with jute rope of various varieties for drying cloths, tying cattle, etc. Plastic made brooms along with bamboo brooms, plastic mats, cane made mats etc. are used in large scale. Lanterns, candles, charging lights, bulbs, rod lights, etc. are used instead of *sakhi* (open lamp). Modern combs, shoes and slippers made of rubber, sponge, leather, etc., match sticks and lighters for lighting fire, umbrellas to protect from sun and rain, gas stove, induction cookers, pressure cookers, electric cookers, micro waves, modern made non-stick pan, steel made ladle etc., for eating on modern plates and bowls made of steel, aluminum, china clay, silver and bronze plates etc., glasses made of steel, plastic, etc. for drinking *jou* (alcohol) and water are normal sights in every Bodo family.

Some articles like stone grinder and *thopshi* (wooden or iron made) for pasting spices and other things, *ural-gaihen* (mortar-pestle) for powdering rice, *thangwn* (bamboo piece) for tying cows, pots made of earth, silver, brass, *guji* (metal stick), *sikha* (knife) and *daba* (smaller *sikha*), clay made lime pot, cow bell, lamp stand, small earthen pot for keeping coins, *keraepa* (a small cross like bamboo stick) for making rope, bamboo made basket for keeping grains, fruits, vegetables, etc., bamboo tube for storing *napham* (fermented fish) and *don* (bamboo basket like pan) are still found in Bodo household but their uses are diminishing.<sup>14</sup>

The traditional materials for smoking tobacco, such as *hukha* and *phuski* are obsolete these days as people prefer smoking *bidi* and cigarettes.<sup>15</sup>

At present Bodo households are found to possess decorative equipment and other important items which are essential for modern families.<sup>16</sup>

## **IMPACT ON SOCIAL AND CULTURAL LIFE**

### **Impact on *Jou* making Tools and Technology**

One of the oldest traditions of the Bodos which still continues is the use of *jou* (alcohol). It used to be an important element of Bodo life for social, cultural and religious activities. Today it also serves for many as a source of livelihood. It is still a very popular drink for a few sections of the Bodo people as they use it for local festivals, marriages, death ceremonies and for entertaining guests.

The ingredients for making *amao* (rice cake) and for alcohol (both *jou gishi/bidoi* and *jou goran*) are the same, so also the tools or articles for preparing it. The Bodos today use another method of making *jou goran* (fermented liquor or distilled liquor) with the help of *noli* (pipe), which was not used earlier.

*Jou* after it becomes sour or tasteless, is used in preparing *jou goran* (distilled liquor). *Jou* after 3-4 days of fermentation becomes ready for preparing *jou goran*, then *jou* is transferred from *maldang* (earthen pot) to silver pot where water is used for diluting which requires for some hours. The whole process of distillation takes 3-4 hours and this process consists of three parts, where the lowest part is silver pot, consisting of diluted fermented rice (*Jumai*), the middle part consist of earthen pot with small holes at the base called *mwkra koro*, and another small bowl is placed to receive the *jou goran*<sup>17</sup> and through one of the holes, a long *noli* (pipe) is inserted till the bowl which is placed inside the *makra koro*. At the other end a bottle is placed to receive the *jou* outside. The upper part consists of a silver pot with shorter neck and open mouth which acts as a condenser and is filled with cold water right through the process of preparing the *jou goran*. The gaps between these components are sealed by using wet muslin clothes and with squeezed *jumai* or mud which prevent leakage of vapors. When constantly heated, the *jumai* placed at the lower part forms vapour, then passes through the perforated base of *mwkhra koro* and after reaching the cool bottom of the condenser, the vapor smacks on the cooled bottom of the component, which is placed at the upper part and when it forms liquid drops by constant vaporization from the lower part to the smaller bowl which is kept as receiver and passes through the pipe and fill the bottle which is placed outside for the same purpose. This liquid is called *jou goran*. When it becomes hot in the upper part, it is poured out and thereafter again it is filled with cold water. The whole process of pouring out and refilling it is done 3-4 times during the whole process of *jou goran* preparation. It takes about 30 minutes to one hour in preparing *jou goran*, and the whole process is called *jou mounai*. This *jou* after distillation is called *afri katla* which is used for feeding pigs.<sup>18</sup>

Today the non-traditional wines (factory made liquor) has become very popular among the people of both the urban and the rural areas. These days, a few of the Bodos have started using harmful chemicals such as urea, methanol, etc. for fast harvesting of liquor for commercial purpose, which if care is not taken in the distillation process and

if the proper equipment is not used, harmful impurities like urea, methanol, etc. can be concentrated to toxic level leading to health hazards.<sup>19</sup> The use of modern glassware made glasses, plastic made glasses, etc. for the purpose of drinking are used instead of traditionally made bowl such as *thona* (made of banana bark), *oua hasung* (bamboo pipe), *abwi thona* (made of banana leaves or leaves of wild plants) etc.<sup>20</sup>

### **Impact on Dance and Musical Tools and Technology**

The impact of modernity on traditional dance and musical instruments of the Bodos can be seen as many use modern and westernized new instruments along with their traditional dance and musical instruments. While they still use *kham* (drum), *sifung* (flute), *serja* (four string musical instrument), *jotha* (small cymbal), *jabkring* (rattle), *thorkha* (bamboo clapper), *khawang* (bigger cymgal), *gongona* (jew harp) and *bingi* (one string musical instrument), they also use many modern instruments such as harmonium, guitar, casio, harmonica, piano, readymade cassettes, the bands and the drums (*duhulas*) during marriage ceremonies and other socio and cultural programmes.<sup>21</sup>

The technology of the traditional dance and musical instruments also underwent changes over the course of time. *Jabkhring* (rattle), a musical instrument of the Bodos is mostly made of plastic instead of wood. Readymade plastic ropes are also used for tying *jotha* (smaller cymbal) and the pair of small cymbals. The wooden part of *serja* (four string musical instruments) is coloured. The metallic *gonganas* (jew harp) and flutes have replaced the traditionally made *gonganas* and *flutes*.<sup>22</sup>

### **Impact on Sericulture Tools and Technology**

The Bodos enjoy an exclusive distinction of producing *eri* (castor), *muga* (silk) and *pat* (mulberry) products. The Bodo belt is the largest producer of *eri* raw silk in Assam.<sup>23</sup> Earlier the Bodos of Kokrajhar district reared only *eri* worms, but now they also rear *muga* and mulberry worms. The Government of Assam has played an important role in introducing new technologies and the cultivation of *muga* and mulberry in the Bodo belts. It has established Collective Mulberry Garden at Beswargaon, Kokrajhar district, established in 1967 and Basic Muga Seed Farm at

BMSF Adabari, Kokrajhar district in 1957. Presently it works as a Silk Production center which is sponsored/funded by NCPT Ltd. Bg. T. P. P. Salakati and implemented by Director of Sericulture, B.T.C. Kokrajhar. Trainings on modern tools and technology are carried out by the sericulture department of the government. In such establishments the government as well as the private individuals can rear worms.

In the process of rearing there are several tools and implements which have modernized the traditional rearing. The bamboo and thatch made houses have been replaced by Assam type buildings and RCC structures. The Bamboo basket (*Khada*), bamboo made rake, the bamboo sticks have been replaced by plastic and aluminum rakes. The jute strings (*durung*) used for tying have given place to plastic strings. The nets which were made of bamboo strings have been replaced by plastic strings.

As the result of modernity, many initiatives were taken up by the Government of Assam under the Directorate of Sericulture and weaving to teach the artisans of the developed handloom industry and to impart training on latest designs and techniques of production as well as on the use of improved looms and implements at various places under Kokrajhar district such as Dotma, Gossaigaon etc. A Tassar Seed Cocoon Farm was established at Kokrajhar on an experimental basis with a view to produce seed cocoons for Tassar Producer, but was later abolished. Government provided Grants-in-aid and subsidies on large scale to promote individual rearer and reeling associations in order to encourage local youths in the art of sericulture.<sup>24</sup> With the establishment of BTC and its functioning, it has resulted in making a way for comprehensive survey to assess the potential and further development of silk industry in BTC. The Director of Sericulture BTC & Central Silk Board prepared a vision document addressing all gaps and constraints. It established backward and forward linkages by strengthening & developing infrastructure, skill up gradation, technology up gradation, training and social mobilization, product diversification and designs development for value addition, market promotion etc. as per the memorandum of settlement (MoS) govt. of India on 10<sup>th</sup> February 2003.<sup>25</sup> Strengthening the infrastructure, skill and technology up gradation were given priority from 2005.<sup>26</sup>

## Impact on Tools and Technology of Spinning, Dyeing and Weaving

The traditional way of dyeing yarn and clothes of the Bodos is fast vanishing with the passes of time.<sup>27</sup> Earlier for dyeing cotton yarn natural dyes extracted from barks, plants and roots were used. But as a result of modernity many new tools and technologies are introduced in spinning, dyeing and weaving. In making colours for dyeing, readymade dye of varieties of colour are found in markets, so also many weaving tools and requirements are now found readymade in markets such as readymade varieties of colour dyed *kundung* (yarn), readymade *rasw* (reed), *nw* (heddles), *agor guna* (metal cord for designing), readymade *gorka*, readymade *gandwi* (wrap beam) etc.<sup>28</sup> Electronic or microprocessor controlled machines and electronic spinning machines are now made available. These machines are used individually and collectively in weaving centers. Productions can be increased with less time, labour and energy.

Modern spinning wheel made of steel and iron are used these days in spinning *eri* thread, which cannot be reeled because with *eri* cocoons continuous filament does not come out as in *muga* and silk cocoons. The spinning machine works both with electricity as well as manual pedaling.<sup>29</sup>

The Bodos are familiar with many new machines, which are used in factories, weaving centers and personally owned homes. For *kundung thunnai* (coiling yarn), they use drum (to lead thread to yarn), next to it they place *guna* (to create designs) and *rasw* (reed) box and next to it bobbin stand is placed and the thread is rolled into wooden as well as iron made *saal-gandwi* (wrap roller) and woven. The whole process of work takes 3-4 hours. Only one person is required to do all the activities just because of modern technology.<sup>30</sup>

Modernity has helped in establishing industry such as *Indi Luo* (industry and weaving center) at Kokrajhar for spinning, reeling and weaving *eri* thread. The modernized machines produce more refined and larger quantity of threads which eventually prepare the way for the weavers to weave.<sup>31</sup>

Modernization today has brought about a great amount of changes in the dress of both male and female. The use of suits, long pants, half pants, shirt, coats, *pajama*, *duthi* etc. are common among the Bodo male folks. Besides products made of cotton, *endi*,

*muga*, polyester, rayon, acrylics as well as other synthetic materials are also made available in abundance.

According to Pritviraj Narzary, of Tengapara, Kokrajhar, as a result of modernity, few weaving centers through power loom has been introduced by the Bodos in and around Kokrajhar, the *Aai* weaving Industry at Tengapara, Kokrajhar being the first one established in 2014.<sup>32</sup> Here as many as 35 girls are employed in spinning and weaving. Girls here can weave as many as 6 *dokhnas* in a day with a single power loom. The power loom is an enormous weaving machine set made of iron with all the weaving equipment's such as *rasw* (reed), *gandwi* (wrap beam), *that* (slay) etc. fixed in it. Only a single person is required to check the process of weaving and join the threads whenever required.

The Government of Assam has also opened several weaving centers in the Bodo regions for skill development and also to promote the existing weaving units. Distribution of yarn to BPL beneficiaries etc. are undertaken by the Handloom & Textiles Department at present in the Bodo dominated regions.<sup>33</sup>

The modernity has played a great role in improving the economic status of women through weaving. *Dokhna* (traditional dress of women), *jwmgra* (a shoulder scarf), *gamcha* (loin cloth), *sima* (bed cover), and *aronai* (traditional scarf) which are woven by them are sold in the markets and weaving has become a source of livelihood. With the coming of new machines and technology, the Bodo women now have taken up weaving as an entrepreneurship option thus representing the Bodo culture in various platform through weaving.<sup>34</sup>

## **Impact on Religion**

*Bibar Bathou* is gaining more popularity, where there is no role of *doudini* (female shaman), whose presence is important in *Gudi Bathou* (original *Bathou*). In order to bring about reformation in the Bathou religious activities an organization named *Bathou Dwhwrwmari Gouthum* (All *Bathou* Religious Union) was formed in 1992, where it has made some mandatory principles such as building *Bathousali* (Temple) with modern available materials such as bricks, woods, cement, tin etc. With *Bathou* altar at the center which was not a practice earlier, regular worship on every

Tuesday at the *Bathousali*, lighting *alari bathi*, use of bronze *gasa* (material for lighting), offering flowers, fruits and *prasads* without encouraging sacrifices of animals and birds have become mandatory. These days artificial lights are used in the temples and *Bathou* altar. The tradition of singing songs which was not there in the history of *Bathou* religion has come into being. *Kherai* dances are accompanied by songs in tune with traditional musical instruments like *kham* (drum), *siphung* (flute), *jhota* (cymbal) and modern musical instrument like harmonium. Prayer songs are played in cassettes and albums and *araj* (prayer) books are also available these days in every devotee household. Instead of *Douri* (male Shaman) or *Doudini* (Female Shaman), priests are appointed by the villagers and he performs all the religious activities along with his band of singers. Many books on religious philosophy, duties and virtues are published yearly. *Bathou* schools, training centers to the youngsters are set up in various places in the Bodo dominated areas.

Though the technology of building the *Bathou* altar is same as it used to be but the fencing of bricks and cement around the altar and even the floor of the altar is plastered with cement. In *Garjasali*, the houses of the deities are made of bricks and cements.<sup>35</sup>

## **Impact on Traditional Games and Receptions**

The impact of modernity has touched the area of traditional games and recreation of the Bodos. Games and recreation are an important part of Bodo social life, as they help in expressing behavior which in return reflects the culture of the society.

The traditional games and recreations have undergone changes, which resulted in modern sophisticated games. It is safely said that the modern games and recreations are only the results of modification of the traditional ones. Today, the Bodos no longer play games and recreations like *hakor-kikor*, *wngkham-wngkri*, *gud-gud*, *mongal batha*, *gila* etc., instead modern and sophisticated games like cricket, badminton, tennis, football, boxing, archery etc. are played.<sup>36</sup>

But today a good number of Bodo traditional games and recreation have become more systematic, organized, modernized, in terms of playground, play time, playing technique, apparatus and equipment of the games for example while playing football in early days the Bodos used to play with *zumbra phithay* (big citrus fruit) where there was no referee, no limited number of players and quality playgrounds. Today football is played with limited number of players in a scientifically prepared playground following the standard rules inscribed by the International Federation of Association of Football.

Since the traditional games and recreations can build the backbone of a community and it being an essential part of a social life which promotes determination to take up tough challenges of life, promote physical strength to work and make life exciting full of positivity and optimistic quality, governments and various organizations are playing important role in protecting and promoting these games and recreations. UNESCO is working for preserving, promoting and developing the traditional games and sports and to fulfill its aim, it is applying projects for training and promoting youth of 22 African Countries in traditional wrestling sports. The declaration of Punta del Este in December 1999, as adopted by the 3<sup>rd</sup> International Conference of Minister and Senior Officials in charge of Physical Education and Sport (MINEPS III) emphasis was given to the preservation and the assessment of traditional and indigenous sports belonging to different cultural heritages of different regions and nations. The concrete provisions for promoting and developing the traditional games and sports were made by highlighting the importance of these games and sports during MINEPS IV. To create a platform internationally in order to develop traditional games and sports the resolution 33C/R.21 was made on 13<sup>th</sup> March 2006, which enabled the formation of organization of a collective consultation at UNESCO's headquarter. This meeting has opened the way for launching the platform for concrete roadmap and an agenda for action for promoting and developing the traditional games and sports.<sup>37</sup>

The Bodo Indigenous Games Festival was held at Mushalpur, Baksa in 2008, where each and every indigenous game of the Bodos was demonstrated. *Khomlainai* (martial arts/wrestling) of the Bodos recently after its 1<sup>st</sup> International Championship held at Kokrajhar from 1-4 November in 2009 is gaining popularity and has claimed its international standard, as players from many countries such as South Africa, Myanmar,

Bhutan and India participated. At present, Rupees Ten lakhs is sanctioned by BTC, as annual recurring grant in the name of Bodo Indigenous Games Association.<sup>38</sup> Bodoland Indigenous Games Association (BIGA) was formed in 2007 at Kokrajhar for preserving, revitalization and promoting of indigenous games, under the initiative of Late Grand Master Chanakya Brahma of Kokrajhar. BIGA has made effort to revive many traditional games and recreations such as *gila*, *batha* (played with two sticks), *amwl dimwl*, *khomlainai* etc. with new dynamism. Every year indigenous game festival is organized during *Baokhungri* festival held at Kokrajhar during *Baisagu*. This Association also influenced the BTC authority to introduce traditional indigenous games in school co-curriculum.<sup>39</sup>

Today, Bodos are not only confined in playing traditional games and recreations, they also take part in athletic, football, volleyball, *kabaddi*, boxing, archery, *tae-kwondo* (martial art), etc. Today Bodo society can be proud of high profile players in the persons of Holicharan Narzary, Durga Boro (Football), international athlete Kiron Basumatry, national archer Simang Mushahary, international boxers Ankushita Boro and Minu Basumatry to name a few.

## **IMPACT ON TRADITIONAL FESTIVALS (SEASONAL AND AGRICULTURE)**

The impact of modernity can also be seen in the traditional festivals of the Bodos. As with time the instruments for celebrating the traditional festivals have changed, so also the ways and means.

During *Baisagu* (New Year) festival, the Bodos dance and sing playing many modern musical instruments such as harmonium, mouth organ, and guitar besides traditional musical instruments. The modern technology also finds its place while playing *baisagu* songs. But the place of traditional musical instruments however is less these days. Earlier the places of celebration were exclusively in villages from house to house. But today the celebrations have shifted to stages and public places. While preparing the stages modern technology is made use of. Even for merry making, Bodos go to picnic spots where foreign liquor is given preference to traditionally prepared rice

beer. For eating and drinking, *laihulai* (plates) and *thona or abwi thona* (bowl) made of wild leaves and banana trunk have been replaced by cups, glasses and plates or disposable paper plates which are easily available in markets.<sup>40</sup> During *domasi*, the traditional way of grinding rice has changed. People use modern milling system instead. Many new items have been added to traditional *pitha* (rice cake), *sitaou* (rice cake), *laru* (rice cake), coconut *laddu*, *sesemum laddu*, pop etc. Modern utensils are used for preparing these items. The practice of tying straw cord around fruit bearing trees and the practice of constructing *bilagur* (a high temple like structure with dried banana leaves or dried straw and green bamboo or wooden pole) is almost vanishing among the Bodos.

In *khotia phwnai* (sowing of paddy seeds) and *mai gainai* (paddy plantation), modern agricultural tools and technology are used. Machines attached to the tractors and power tillers are widely used for the purpose.

In *Nangal Jangkhra* (ceremony of eating rice after finishing rice plantation) and in *engkham godan janai* (new rice eating) ceremonies, now modern plates, bowls and glasses are used.<sup>41</sup>

## **IMPACT ON TRADITIONAL RITES AND RITUALS (BIRTH, MARRIAGE AND DEATH)**

The life of a Bodo is marked with many rites and rituals starting from the birth till death. Some tools related to traditional rites and rituals have changed. Delivery of babies at home have become rare. The Bodos no longer use traditional bamboo made hard strip in order to cut the umbilical cord, nor a *muga* or cotton thread for tying around detached cord. The burying of placenta at the front of the main house is a very rare sight these days. Nor the newly born child is placed on *songrai* (winnow), nor is *polo* (fishing tool) covered on the child for crying too much. Delivery through caesarian section and pre term deliveries are very common these days. Complications related to birth are known in advanced and hence tackled through for which the rate of mortality has decreased among the Bodos. All these have been made possible because of modern tools and technologies.

During Bodo marriages apart from the religious rituals modern tools and technology are used. While decorating the place of wedding tent house and flower house are booked. The catering party is booked for cooking and serving purposes. Modern disposable plates, bowls and glasses are used instead of *laihulai* (plate made of wild plant leaves), *talir lai* (plate made of banana leaves), *dona* (bowl made out of banana trunk) and *abwi thona* (bowl made out of wild leaves). Modern songs are played and video men are called for recording the wedding ceremony. Vehicles decorated with flowers are booked for carrying the bride to the bridegroom place. Modern band parties are preferred for welcoming the bridegroom to the bride house.

The Bodos practiced both the burial and the cremation way of disposing the death body. In the post funeral functions especially at the time of *saradu* while serving the invitees modern disposable plates, bowls and glasses are used.<sup>42</sup>

## IMPACT ON HOUSE MAKING

The traditional houses of the Bodos were previously built of bamboo, reeds and thatch grass, with floor plastered with cow dung, which were less durable. But today the Bodos of well-to-do families build their houses with bricks, corrugated iron sheets, asbestos, tin, concrete or fiber cement, glass etc., which have changed the structure of the housing system of the Bodos.<sup>43</sup>

The traditional *chang banglas* (raised platform) and *banglas* (two stories) dwelling houses are no longer seen these days and dwelling houses are built on the ground.<sup>44</sup> The materials used for building these sheds are tin, woods, bamboos, bricks, cement etc.

The construction of *bon* (fire wood) *dwingra* platform, for the purpose of keeping fire woods are very rare sight of the Bodos living in towns or at the house stead of well-to-do family, as these days modern stoves running on liquefied petroleum gas are very commonly used by the Bodos.<sup>45</sup>

## IMPACT ON COMMUNICATION NETWORKS

Modernity resulted in the development of communication networks system among the Bodos. The use of traditional carts drawn by bullocks, buffalos and horses for the purpose of travelling from one place to another are no longer found. They use modern vehicles for traveling on land such as buses, cars, taxies, trains, bicycles, flights, autos, bikes, *rikshwas*, etc. The goods are also carried by carrier trucks, goods trains etc. For water transport along with man rowing boats, motor boats made of woods are being used by the Bodos whenever necessary along with traditional boat made out of banana trunks during emergencies like floods. But traditional boats used by the Bodos made out of *sumli dongpang* by heating with fire are not found these days.

The traditional bridges made in traditional methods are still visible in some Bodo villages but modern RCC bridges built by the government are normally found everywhere.<sup>46</sup>

It is thus clear from the above discussion that the impact of modernity on the traditional tools and technology was both positive and negative and far reaching in nature.

## END NOTES

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  - <sup>2</sup> Hiranya Brahma Choudhary, Age- 54, Banker, Village- Narabari (Kokrajhar), District Kokrajhar, 18-02-2018 (An informant).
  - <sup>3</sup> Jogendra Daimari, Age- 64, Retired Teacher, Village- Lothaipara, (Dimakuchi), District- Udalguri, 27-12-2014 (An informant).
  - <sup>4</sup> Madhu Narzary, Age- 61, Retired School Teacher and Bodo Folk Artist, Village- Simbargaon, District- Kokrajhar, 09-02-18 (An informant).
  - <sup>5</sup> Amrendra Kumar Thakur, *Technology of the Tribes of Northeast India*, DVS Publishers, Guwahati, 2017, p. 94.

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- <sup>6</sup> Soroj Basumatary, Age- 63, Retired Government Service, Village- Habrubil, District- Kokrajhar, 06-06-17 (An informant).
- <sup>7</sup> D. P Barooah, *Assam District Gazetteers (Goalpara District)*, Government of Assam, Gauhati, 1979, pp. 138- 144.
- <sup>8</sup> BTC and Socio- economic Development (Chapter- IV), *shodhganga.inflibnet.ac.in*, p. 102.
- <sup>9</sup> *Ibid*, pp. 98- 105.
- <sup>10</sup> Someswar Narzary, , Age- 59, School Teacher, Village- Panbari, District- Kokrajhar, 07-02-18 (An informant).
- <sup>11</sup> Donda Brahma, Age- 55 Farmer, Village- Ramoni Ashram, District- Kokrajhar, 10-02- 18 (An informant).
- <sup>12</sup> BTC and Socio- economic Development (Chapter- IV), *op. cit*, pp. 105- 107.
- <sup>13</sup> Dr. Rabindra Nath Mosahary, Age- 78, Retired Principal of Union Christian College, Barapani, Meghalaya, Village- Bongaigaon, District Chirang, 01-07-2017 (An informant).
- <sup>14</sup> Bhanu Rani, Brahma, Age- 59, Assistant Teacher, Village- Gossaigaon, District- Kokrajhar, 15-02-2018 (An informant).
- <sup>15</sup> Subendra Nath Suba, Age- 67, Retired Teacher, Village- Paschim Satali, District- Alipurduar, West Bengal, 08-06-2017 (An informant).
- <sup>16</sup> Dr. Rabindra Nath Mosahary, Age- 78, Retired Principal of Union Christian College, Barapani, Meghalaya, Village- Bongaigaon, District Chirang, 01-07-2017 (An informant).
- <sup>17</sup> Nijra Brahma, “The Traditional Tools and Technology of the Bodos in preparing their Indigenous drink Jou or Jumai”, *Researchers World, Journal of Arts, Science & Commerce*, Vol- VIII, Issue- 3(2), 2017, p. 102.
- <sup>18</sup> Bhibuti Narzary, Age- 55, Nurse, Village- Dotma, District- Kokrajhar, 15-02-2018 (An informant).
- <sup>19</sup> Rubendra Nath Suba, Age- 70, Retired Teacher, Village- Paschim Satali, District- Alipurduar, West Bengal, 08-06-2017 (An informant).
- <sup>20</sup> Bhibuti Narzary, Age- 55, Nurse, Village- Dotma, District- Kokrajhar, 15-02-2018 (An informant).

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- <sup>21</sup> Sachindra Nath Suba, Age- 62, Retired Teacher, Village- Paschim Satali, District- Alipurduar, West Bengal, 08-06-2017 (An informant).
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- <sup>23</sup> *District Census Handbook Baksa (Village and Town Directory)*, Series- 19, Part XII- A, Directorate of Census Operations, Assam, 2011, p. 8.
- <sup>24</sup> Barooah, D. P, *op. cit*, p.p. 180- 181.
- <sup>25</sup> *Director of Sericulture*, Bodoland Territorial Council, Kokrajhar, Assam, India, [www.dosbtc.org](http://www.dosbtc.org).
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- <sup>27</sup> B. N. Bordoloi, G. C. Sarma Thakur, M. C. Saikia, *op. cit*, p. 22.
- <sup>28</sup> Behula Narzary, Age- 50, Owner of Aai Weaving Industry, Village- Tengapara, District Kokrajhar, 18-02-2018 (An informant).
- <sup>29</sup> Jodu Moni Kachari, Age- 45, Employed at Basic Muga Seed Farm, Adabari, Kokrajhar, District Kokrajhar, 17-02-2018 (An informant).
- <sup>30</sup> Rwisumwi Basumatary, Age- 45, House wife and weaver, Village- Purana Titaguri, District Kokrajhar, 08-02-2018 (An informant).
- <sup>31</sup> Amrit Narzary, Age- 31, Employed at Endi Luo, Kokrajhar, Village- Gossaigaon, District Kokrajhar, 17-02-2018 (an informant).
- <sup>32</sup> Pritviraj Narzary, Age- 56, Banker, Village- Tengapara, District Kokrajhar, 18-02-2018 (An informant).
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- <sup>35</sup> Dr. Anil Kumar Boro, "Bathou Religion: From Traditional Practice to Institutionalization", *Kherai*, Souvenir, All Bathou Religious Union (ABRU), Guwahati, 2008, pp. 118- 128.
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- <sup>39</sup> *The Bodo Tribe ‘Online- Magazine’*, Bodo Indigenous Games Association, [www.biga.org.in](http://www.biga.org.in), 12-02-2015.
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- <sup>41</sup> Bhanu Rani Brahma, Age- 57, Teacher, Village- Gossaigaon, District Kokrajhar, 21-02-2018 (An informant).
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- <sup>43</sup> Mohini Mohan Narzary, Age- 56, School Teacher, Village- Duligaon, District- Kokrajhar, 07-02-18 (An informant)
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