

RESEARCH ARTICLE

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MATERIAL CULTURE OF THE KOKBOROK SPEAKING COMMUNITIES: CHANGES AND CONTINUITY

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ABSTRACT

Globalisation, modernisation and communication technology have resulted into a homogenised global culture. The socio-cultural and economic practises of the Tripuris or Kokborok speaking communities in Tripura, India, have also undergone transformation over time. To examine the extent of these changes, this paper identifies the livelihood-based economic activities still practised by the Tripuri communities. It further investigates the spatial variation in use of material culture related to economic activities, socio-cultural practises among the Tripuris. Quantitative data were collected using a structured schedule through field survey across two blocks, Bokafa and Karbuk, covering eight Kokborok-speaking communities in the month of March 2025. Based on the data, descriptive and comparative analyses were made. The research focuses on major livelihood activities prevalent among the Tripuris: agriculture, hunting, livestock rearing, fishing, brewing, weaving, handcrafting, and rubber plantation. The findings of the study reveal that the Tripuris continue to engage in agriculture, primarily lowland paddy cultivation, with significant changes in tools and materials used. Traditional practises such as brewing, weaving, and livestock rearing persist as key livelihood activities, but the materials associated with them have evolved, with spatial variation across communities. In contrast, hunting and handcrafting have largely declined, excepting few households. Rubber plantation have emerged as a dominant economic activity, promoted by the government to encourage settled agriculture and biodiversity management. This shift have contributed to the decline of many traditional practises with only a small fraction continuing traditional ways of life and subsequently brought substantial changes ultimately affecting the material culture.

Keywords: cultural change, globalisation, livelihood activities, material culture, traditional practises, Tripuri communities

Introduction

Material culture refers to the material products, which are tangible and occupy space, that people use in their daily life, as those are necessary for the survival and conveys the cultural values and the social status that are passed down to generations (Jiang, 2024). Driven by the growth of

population, environmental problems, the development in science and technology, requirement of new material to have long and healthy life, material culture have undergone major transformations (Tegegn, 2024). Globalisation has brought the world closer to each other, leaving little room for the societies to escape from this phenomenon. Wani, (2011) asserts that globalisation have enabled societies to exchange and integrate with one another facilitating the cross-cultural exchange of the material culture giving rise to new homogenous culture. According to Eze & Oloidi (2017), society and their material culture evolve with time in order to adapt to their changing environment, as a result of interaction between societies, changes occurs in the culture directly or indirectly. They also viewed that modernisation along with globalisation, contributes to shaping the material culture of the world. Modernisation have brought changes in the beliefs and values of people. Education is one such change brought by modernisation which uses technology to diversify livelihood activities. Modernisation have resulted into expansion of service sectors creating new, reliable and easier ways of earning. Although modernity may help in the preservation and promotion of the traditional culture, society adopts new modern materials which is more advanced and convenient wiping out their formal traditional items (Wani, 2011). The Tripuri or the Kokborok speaking communities of Tripura have also undergone similar changes in material culture because of such global phenomena. Traditional economic activities like the shifting cultivation and hunting and gathering food which depended on the forest are no longer sufficient for survival as there is a shift from traditional to modern activities, leading to adaptation of the modernised ways of life. As a result, the significance of traditional material culture has reduced, thereby altering the material culture of the Tripuri people. The materials used in the rituals, economic activities, architecture, cuisine, dress and attire of Tripuris have evolved over time and have been replaced by new materials. Nevertheless, the Tripuris continues to engage in some traditional economic activities like shifting cultivation and fishing because of limited opportunities and skills to adapt to the new economic activity. The sense of pride in their traditional culture may also be another factor in the continuation of the traditional economic activity. The present paper attempts to examine the changes and continuity in the material culture of the Tripuris.

Study Area

Tripura is the third smallest state in India located in Northeast India between 22°7' and 24°2' North latitudes and 91°0' and 92°0' East longitudes. As per the Census of India 2011, thirty one percent of the population of Tripura belongs to the tribes. Within the tribes, the Kokborok speaking communities comprise two thirds of the population. The Tripuri (or Tipra) taking surnames of Debbarma and Tripura, Reang, Jamatia, Noatia, Uchoi, Murasingh, Rupini and Kalai of Halam tribe consists of the Kokborok speaking communities. They are distributed all over the state with concentration of some tribes in certain pockets of the state.

Literature Review

The existing literatures on the present topic are based on the causes of change in material culture and preservation of traditional knowledge. The existing literatures have identified modernisation, globalisation, improved communication, socio economic changes, and demographic dynamics as the causes of change in material culture. Eze-Uzomaka and Oloidi (2017), in their investigation on the effects of modernisation on Yoruba cultural heritage in Ado and Igede-Ekiti, and Nigeria and Kandpal and Kumar (2024), in their study on the Bhutia tribe of Uttarakhand found out that while modernisation introduced benefits such as improved infrastructure, education, healthcare and promotion of cultural tourism, it also contributed to the erosion of traditional values, extinction of certain practices, abandonment of indigenous customs and decline of dialects. Nag (2021), in her paper entitled 'impact of globalization on communication and culture: the Indian scenario' found out that globalisation through communication technologies creates cultural homogenisation, increases consumerism and converges culture. Mass media has greatly influenced the change in culture all over the world. This is evident from the study conducted by Paul and De (2022), on the Santal community in Birbhum, West Bengal. They found out that while the Santals have retained some traditional practices, modernisation and media exposure have significantly altered their lifestyle shifting from clay utensils to aluminium, traditional attire to modern fashion, and folk songs to popular media content. Socio-economic changes also influence the change in material culture. Eerkens and Lipo (2005), found out that small shifts in economic activities can gradually transform the material aspects of everyday life. They further found out that cultural transmission and copying

errors shape the variation in material culture over time. Other than economic activities economic dynamic reshape the material culture. Crane and Bovone (2006), highlight how changing economic dynamics reshape what individuals wear and how clothing is produced, distributed, and perceived. Another factor for changes in material culture is changing demography. Shennan (2000), offers a compelling examination of how population dynamics deeply influence material culture over time. He contends that cultural change is best understood through the concept of descent with modification, in which traditional practices are passed down vertically through generations but shift delicately under influences like migration, population fluctuation, and local adaptation. Findings emphasize that demographic fluctuations strongly shape cultural transmission, with small populations amplifying drift, while expansions drive differentiation, innovation, and regional cultural transformations.

On hand globalisation, communication technologies, modernisation, etc. can erode the traditional practices but on the other they can also promote them. Nag (2021), have found out that communication technologies can lead to globalisation leading to culture expansion of local cultures and ethnicities globally. Singh and Kumar (2024), examined how technological tools like digital archives, social media, and virtual storytelling are being used to document and share traditional knowledge, crafts, and practices. Similarly, Hirwade and Hirwade (2012), examine how traditional knowledge, especially among indigenous and rural communities in India, is being protected in the face of modernisation, economic change, and biopiracy. Further they found out that as modern industries commercialise indigenous knowledge without adequate recognition or compensation, communities face the risk of losing ownership of their traditional material culture.

Other studies have highlighted how people adapt, evolve and transform their cultures to meet the ever changing needs. Sarkar and Bairagi (2023) and Roy (2024) in their study on the traditional costumes of Tripuris reveal that while *Rignai* and *Risha* remain cultural markers, weaving practices, motifs, styles, fabrics, colours have evolved, adapted and blended to contemporary fashion reflecting globalisation, urbanisation, media influence, and cultural identity transformation.

Objectives

The present paper aims to fulfil the following objectives

- i. To identify different types of livelihood materials of the Kokborok speaking communities.
- ii. To examine the livelihood activities based on the material culture.
- iii. To analyse the community wise variation in material culture among the Kokborok speaking communities.

Research Question

The present paper attempts to answer the following research questions

- i. What are the different material cultures that are prevalent across different Kokborok speaking communities?
- ii. How far do economic activities determine the material cultures? Does it vary across communities?
- iii. What is the extent of the Tripuri communities practising the traditional livelihood?

Database and Methodology

Database

The present study uses both the primary and secondary data

Secondary data: Secondary data includes articles, census data, books etc.

Primary data: The primary data is based on the field survey which was carried out in the month of March 2025 at the household level through scheduled questionnaires.

Methodology

The present study uses quantitative data for the analysis and is descriptive in nature. A pilot survey was conducted to enhance the actual survey through incorporation of the points missed. The schedule is divided into three parts i.e. socio-demographic, the economic, and the material

culture with both semi-structured and open-ended questions. The data is entered into excel and compiled with the help of excel and presented in tabular forms after converting them into percentages. The terms used for the materials have considered the Kokborok dialects spoken by Reang and Tripuris (Debbarma). Variations in terms may exist among the nine different Kokborok speaking communities.

Sample Design

A total sample of 100 households were surveyed covering eight Kokborok speaking communities the Tripuri (Debbarma, Tripura), Reang, Jamatia, Uchoi, Murasingh, Noatia and Kalai of Bokafa and Karbuk blocks. To replace the absence of Rupini community in the sampled area the displaced Reangs were surveyed for the analysis, this community have moved to the sample area in the year 2022, carrying the cultural traits of a different geographical location and influence of dominant cultural group in Mizoram. The Reangs are divided into the native Reangs and the displaced Reangs. The displaced Reangs once upon a time were settlers of Tripura but they have been displaced to Mizoram because of Dumbur Hydel Project. From Mizoram they have been again displaced to Tripura. Most of them have been rehabilitated in various parts of Tripura. As mentioned earlier that the Kokborok speaking communities comprise of nine communities, inclusion of all these communities is the first criteria. The rationale behind considering Karbuk and Bokafa for the present study is due to two reasons. The first being high concentration of Kokborok speakers in Bokafa block. As per census 2011, Bokafa block has the second highest concentration of Kokborok speakers with 4.8 per cent after Dasda block. The second reason is due to high diversity of Kokborok speakers. Apart from having high concentration of Kokborok speakers Bokafa block also have higher diversity of Kokborok speaking communities as compared to Dasda block. Although Karbuk ranks sixteenth with 3 per cent of Kokborok speakers but it has very high diversity of Kokborok speakers. Keeping in mind the concentration as well as the diversity of the Kokborok speaking communities in these two blocks, they were considered ideal for the present study. A total of eleven villages were sampled based on the concentration of each Kokborok speaking community. Out of the total samples 78 samples were surveyed in eight villages of Karbuk block and 22 samples in three villages of Bokafa block due to higher diversity in Karbuk. A sample size of eleven each was surveyed for each community

with some exception of Kalai and Rupini due to non-availability. Hence the samples were increased for Reangs (Table 1).

Table 1: Sample design

Community	Block	Villages	Samples size
Murasingh	Bokafa	Bishnu Murasingh Para	11
Noatia	Bokafa	Pada Chandra Noatia Para, Patichhari Dropgate	11
Debbarma	Karbuk	Lakhan Para, Hemanta Para	11
Uchoi	Karbuk	Rangacherra	11
Jamatia	Karbuk	Sibahari Para	11
Displaced Reang	Karbuk	Groingnang Para	15
Native Reang	Karbuk	Silarai Para	12
Tripura	Karbuk	Ratindra Para	11
Kalai	Karbuk	Kalai Para	7
Total			100

Results and discussions

Patterns of Livelihood and Material Culture

Agricultural material

Agriculture, particularly *jhum* cultivation have traditionally been a major economic activity of the Tripuri communities (Bhattacharjee et al. 2016). However, government initiatives promoting settled agriculture, such as plantation crops along with declining yields from shifting cultivation and scarcity of lands have led to the decrease in the number of shifting cultivators. As a result, more households are now engaged in settled agriculture, including lowland crop cultivation and cash crop plantations; hence, changes relating to agriculture material culture have been taking place. Agricultural materials classified according to their function are ploughing, planting/sowing, weeding or pest control, harvesting, threshing, drying, storing, and husking.

Within ploughing tools, power tillers, rented power tillers, ploughs, and spades are used as tools and materials for agricultural activities. The spade is the most commonly owned material, with 56 percent of respondents (Table 2). Ownership is highest among the displaced Reang, where

every household owns a spade, and more than half of the sample households in other communities, except the Noatia and Murasingh, (9 percent). Power tillers used on rent rank second (31 percent), though actual ownership is much lower (10 percent). Power tiller ownership is most common among households with larger plots of lowland, particularly the native Reang (50 percent), followed by Jamatia (27 percent) and Tripura (9 percent). The traditional ox-driven plough is rare, owned by only 6 percent of the total sample households, found among the Tripura, native Reang, Jamatia, Uchoi, and Debbarma. The Noatia, Murasingh, Kalai, and displaced Reang communities do not own ploughing tools, as they are not engaged in ploughing activities.

Planting materials include the *Chengpai*, *Lakhu*, and *Hingcha*. The *Chengpai* (Figure 1A), a small cylindrical basket used for carrying rice seeds while sowing in *jhum* cultivation, is owned by 15 percent of respondents (Table 2), with higher ownership among the Reang as they are more involve in *jhum* cultivation. The *Hingcha* (Figure 1B), a basket used for carrying rice seedlings, is owned by 6 percent of households, 33 percent among the native Reang, and 9 percent each among the Jamatia and Tripura. It is less common because seedlings can also be transported in bundles tied with rope. The *Lakhu* (Figure 1C), worn during rice transplanting to protect from rain or sun, is extremely rare (2 percent), found only among the native Reang. Its scarcity is attributed to unavailability of raw materials for its production and also availability of other alternative products.

Table 2: Agriculture Materials across communities in percentage

Use	Materials	Community									
		All Communities	Tripura	Displaced Reang	Native Reang	Kalai	Jamatia	Uchoi	Debbarma	Murasingh	Noatia
Ploughing	Power tiller	10	9	0	50	0	27	0	0	0	0
	Power tiller on Rent	31	36	0	42	57	55	64	27	9	0
	Traditional Plough	6	9	0	17	0	9	9	9	0	0

	Spade	56	45	100	50	86	64	64	73	9	9
Planting/Sowing	Chengpai	15	9	33	50	14	18	0	0	0	0
	Lakhu	2	0	0	17	0	0	0	0	0	0
	Hingcha	6	9	0	33	0	9	0	0	0	0
Weeding/pest control	Fertiliser sprayer	20	9	0	75	14	45	18	0	18	0
Harvesting	Sickle	40	27	40	83	29	64	27	73	9	0
Drying	Net	28	18	0	75	14	45	27	45	27	0
	Tarpaulin	15	9	0	25	0	9	55	18	18	0
	Yangkhong or Yakhung	13	9	47	17	14	18	0	0	0	0
	Tin	8	0	0	8	0	18	0	36	9	0
Threshing	Power tiller	10	9	0	50	0	27	0	0	0	0
	Power tiller Rent	33	36	0	42	57	55	64	27	36	0
	Klang	14	0	47	33	0	0	0	27	0	0
Storing	Khouh	25	18	33	67	29	36	9	9	18	0
	Jute sack bag	89	100	93	50	100	91	82	100	91	100
	Mainouh or Mainok	6	0	0	17	0	0	0	27	9	0
	Langa	39	36	40	42	43	55	18	55	45	18
Husking	Risam or Rwsam & Rumo or Romo	42	27	13	83	57	36	64	64	36	9
	Rice Mill Machine	25	36	0	42	14	36	18	36	9	36
Winnowing	Baileng	89	64	93	92	86	100	91	100	91	82

Source: Field survey, March 2025



Figure 1A: Chengpai; Figure 1B: Hingcha; Figure 1C: Lakhu
Photographs taken by Reang, K, March 2025

Weeding is traditionally done using the *Dao*, while pest control was traditionally performed manually by spreading ashes on paddy or other plants. Currently, 20 percent of households uses

fertiliser sprayers (Table 2), which is highly used among the native Reang (75 percent) and nearly half of the Jamatia, reflecting the presence of settled agricultural fields. Fertiliser sprayers are also found among the Tripura, Kalai, Uchoi, and Murasingh, but not among the Debbarma, Noatia, and displaced Reang.

For harvesting, the sickle is universally used by farming households, representing 40 percent of the total sample. Ownership is highest among the native Reang (83 percent), while no Noatia households own one.

Drying materials have become more diverse, which includes fencing nets (Figure 2A), *Yangkhong or Yakhung* (Figure 2B) that is a traditional drying mat, and roofing sheet (Figure 2C). The scarcity of traditional materials as well as decreasing number of craftsmen led to only 13 percent of households owning a *Yangkhong or Yakhung*, with no ownership among the Uchoi, Noatia, Debbarma, or Murasingh. Fencing nets and tarpaulins are more common (28 percent and 15 percent, respectively), while roofing sheet are used by 8 percent of households.

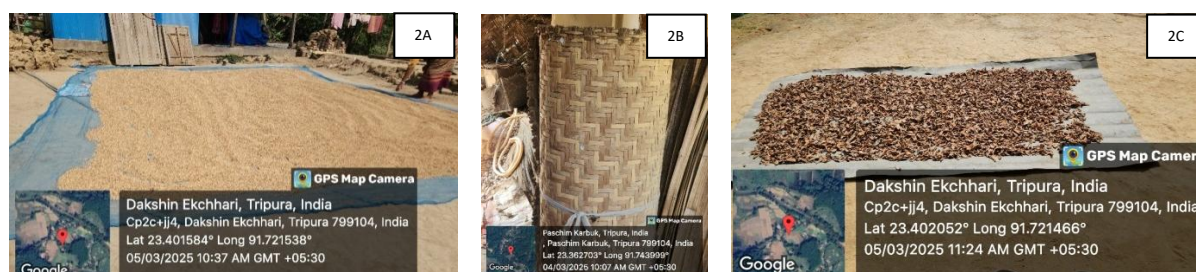


Figure 2A: Fencing Net used for drying; Figure 2B: Yangkhong or Yakhung for drying; Figure 2C: Roofing sheet used for drying
Photographs taken by Reang, K, March 2025

Primary material for threshing currently is power tiller, although some households continue to use the *Klang* (Figure 3), a giant basket on which paddy is threshed to separate the grain from the stalk. The *Klang* is owned by 14 percent of households, specifically among the Reang and Debbarma. *Klang* is also used as storage material.



Figure 3: Klang
Photographs taken by Reang, K, March 2025

Jute sack bag is most widely used for storage, owned by 89 percent of households, nearly across all communities, except the native Reang. The *Langa* (Figure 4A), a large cylindrical basket, is owned by 39 percent of households. The *Khouh* (Figure 4B), a giant cylindrical basket (2 to 3 meters in diameter) is used for storing rice, owned by 25 percent of households, found in all communities except the Noatia. The *Mainouh* or *Mainok* (Figure 4C and 4D), an elevated house built as a warehouse for storing large harvests, is used by only 6 percent of households, specifically the native Reang, Debbarma, and Murasingh.

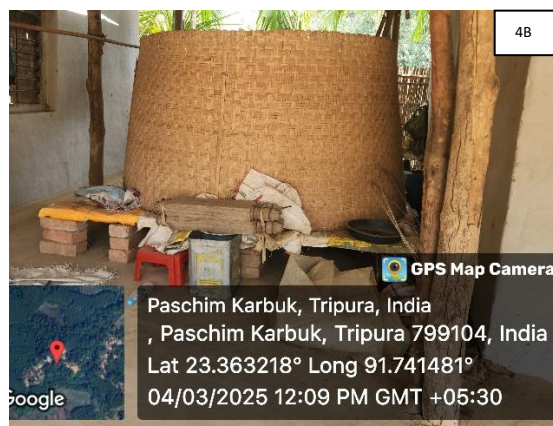




Figure 4A: Langa; Figure 4B: Khouh; Figure 4C: Mainouh or Mainok (from outside); Figure 4D: Mainouh or Mainok (from inside)
Photographs taken by Reang, K, March 2025

Husking was traditionally done with the *Dengi* (a leg-operated lever), which is no longer in use. At present, husking is done in rice mills or with the *Risam* or *Rwsam* and *Rumo* or *Romo* (Figure 5A), tools similar to a mortar and pestle, also used for milling rice flour. These are used by 42 percent (Table 2) of households, with highest ownership among the native Reang and lowest among the Noatia. Rice mills are used by 25 percent of households, although those owning mortar and pestle often prefer the rice mill machine for husking, reserving the *Risam* or *Rwsam* and *Rumo* or *Romo* for flour milling. The traditional winnowing sieve, *Baileng* (Figure 5B), a disc like bamboo crafted material is owned by 89 percent of households, with nearly four-fifths of each community possessing one.



Figure 5A: Risam or Rwsam, Rumo or Romo; Figure 5B: Lady cleaning rice with Baileng
Photographs taken by Reang, K, March 2025

In summary, ownership and use of agricultural tools indicate that paddy cultivation is still practised by more than half of the sample households across all communities. Lowland paddy cultivation is now more common than shifting cultivation, which once formed the primary livelihood activity. This shift can be attributed to the scarcity of virgin land suitable for shifting cultivation and the diversification of employment opportunities outside agriculture.

Hunting materials

Hunting materials are scarce because there are no organised hunting groups. The primary tools currently used for hunting birds are the catapult and balls and the bar, neither of which are entirely traditional. Traditionally, the bow and arrow were used for hunting, but these are no longer in use among any community.

Table 3: Hunting materials in percentage across communities

Materials	All Communities	Community								
		Tripura	Displaced Reang	Native Reang	Kalai	Jamatia	Uchoi	Debbarma	Murasingh	Noatia
Catapult and ball	7	9	0	0	57	18	0	0	0	0
Bar	1	0	0	8	0	0	0	0	0	0

Source: Field survey, March 2025

Only a small proportion of households across all communities own these hunting tools. Catapult and balls (Figure 6B), are owned by just 7 percent of the total sample population (Table 3), found only among the poorer communities Kalai (57 percent), Jamatia (18 percent), and Tripura (9 percent). The *bar* (Figure 6A), is even rarer, owned by just 1 percent of the sample population, specifically among the native Reang. The *bar* was used by elderly couple and was an old item, suggesting that older members of the community are more likely to retain traditional hunting tools.

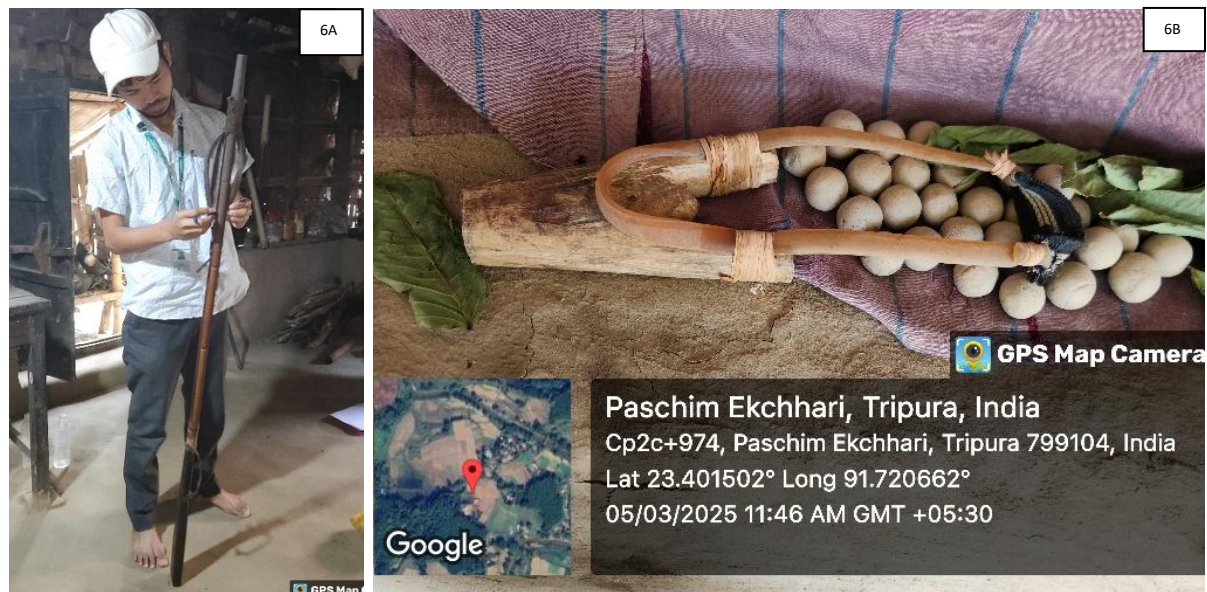


Figure 6A: Bar; Figure 6B: Catapult and Ball
Photographs taken by Reang, K, March 2025

Hunting is no longer a primary means of livelihood for the Tripuri communities. It's practised only by the poorer groups such as the Kalai, who does limited hunting of wild birds as a way to supplement their food requirement. Economically better-off communities no longer engage in hunting, as they have sufficient alternative food sources. The decline in hunting is also linked to forest regulations that restrict farming and related activities.

Livestock rearing materials

The materials used for livestock rearing include *Takhuk*, *Toktoikhok*, pigsties, cowsheds, and goat sheds. *Takhuk* (Figure 7A), is a bamboo cage used to keep chickens, owned by 78 percent of households of the sampled population (Table 4). Every community in the research owns at least some form of *Takhuk*. Ownership is highest among the native Reang and Kalai communities, where 100 percent of households have one, followed by the displaced Reang (93 percent), and the Noatia and Uchoi communities (91 percent each). The lowest percentage is observed among the Murasingh community, who don't sacrifice chicken in their rituals hence rearing chicken is uncommon and so is the material. *Toktoikhok* (Figure 7B) is a basket for hens for egg-laying and hatching, but only 15 percent of total sample households owns this material. This large gap between the ownership of *Takhuk* and *Toktoikhok* is caused by the smaller number of chickens reared by some communities, and *Takhuk* replaced *Toktoikhok* for egg-laying and hatchings.

Pigsties (Figure 7C), are present among 22 percent of total households only. Ownership is highest among the displaced Reang (47 percent), as they do not own agricultural land; therefore, rely heavily on pig rearing as their primary occupation. The native Reang rank second (33 percent), followed by the Uchoi and Murasingh communities (27 percent each), where livestock rearing is practised alongside other subsidiary occupations. Cowsheds (Figure 7E), are found in 34 percent of total households. Ownership is highest among the native Reang (58 percent), followed by the Kalai (57 percent), Jamatia (55 percent), Murasingh (45 percent), and Noatia (37 percent). There is a notable relationship between lowland ownership and cow rearing, as households with lowland are more likely to rear cattle; therefore, they require cowsheds. There is significance of cow used for ploughing the paddy field; hence, highly owned by the lowland owning households. Goat rearing is the most uncommon rearing activity; accordingly, only 22 percent of household samples own goat sheds (Figure 7D).

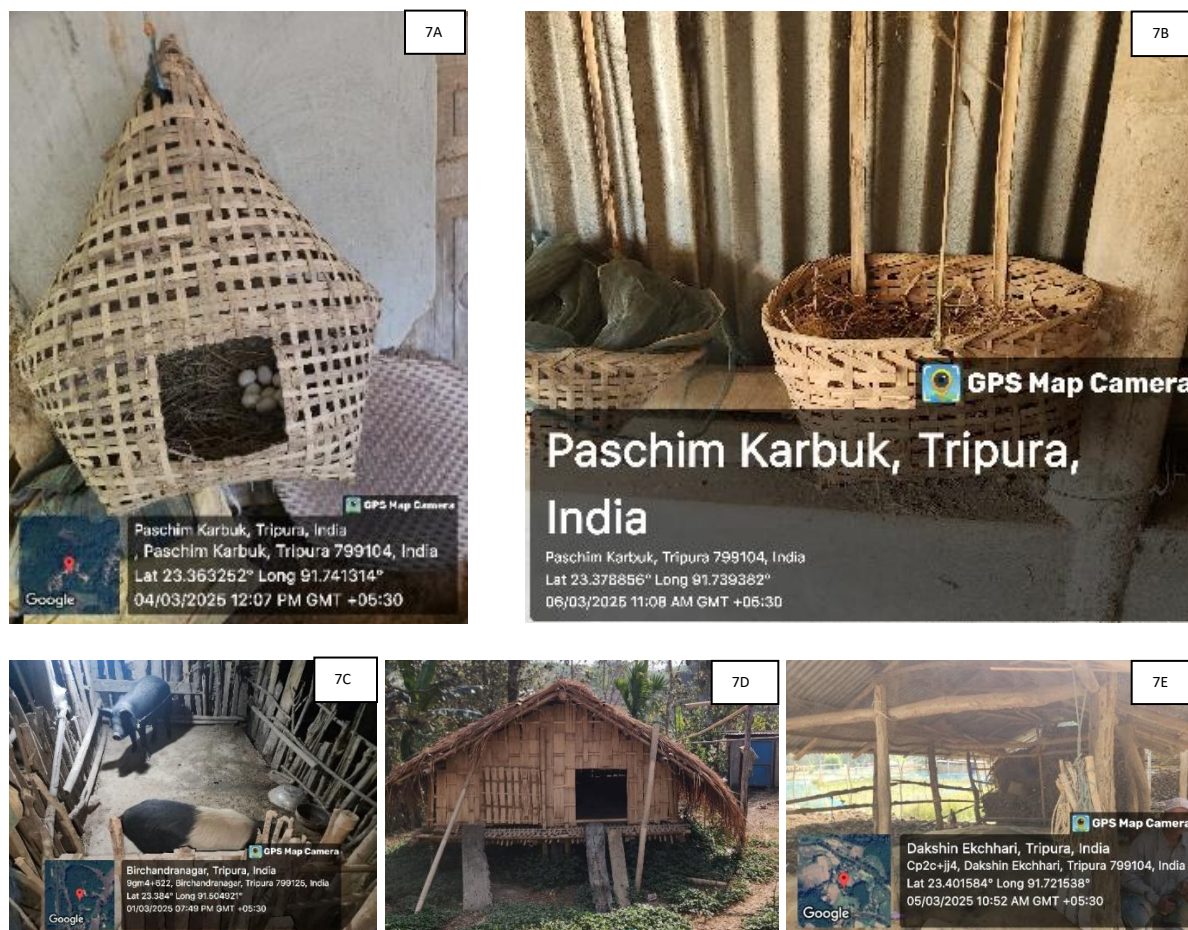


Table 4: Percentage of households having livestock rearing materials

Materials	All Communities	Community								
		Tripura	Displaced Reang	Native Reang	Kalai	Jamatia	Uchoi	Debbarma	Murasingh	Noatia
Takhuk	78	45	93	100	100	82	91	64	36	91
Toktoikhok	15	9	7	0	14	45	36	18	0	9
Pigsty	22	18	47	33	0	9	27	18	27	0
Cowshed	34	18	0	58	57	55	27	27	45	36
Goat Shed	22	18	0	17	29	55	36	18	36	0

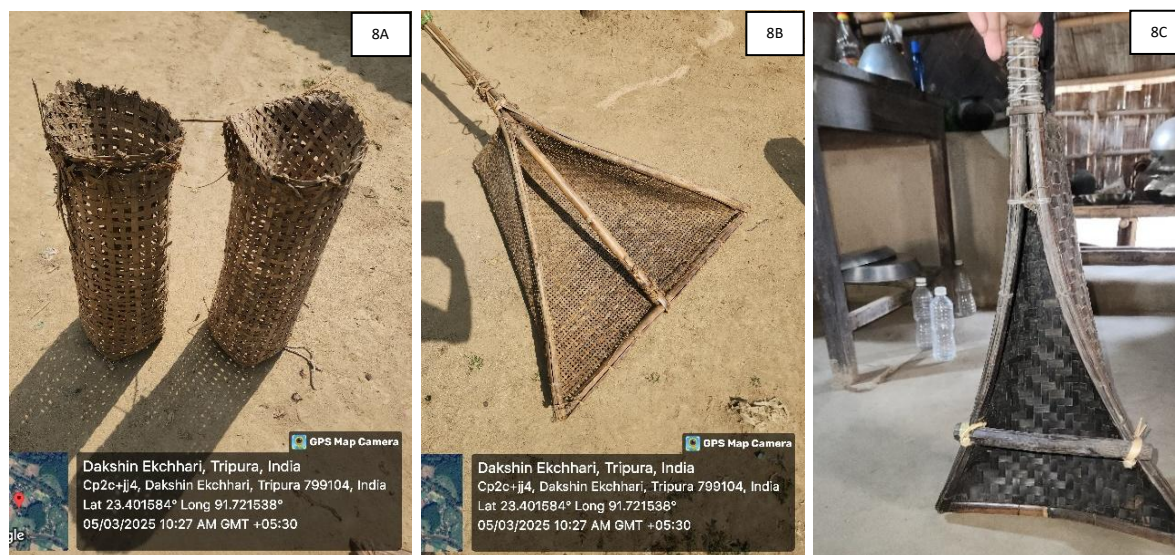
Source: Field survey, March 2025

Over time, the materials used to construct animal shelters have also changed. For example, the use of tin sheets for roofing instead of traditional thatch in cowsheds and goat sheds have become common. Livestock rearing especially chicken rearing remains a major source of food and livelihood for these communities. Preferences vary by community: pig rearing is more common among the displaced Reang, while cow rearing is more prevalent among the Kalai and Jamatia communities. Religious beliefs also influence livestock rearing patterns and the materials used.

Fishing Materials

Fishing is one of the livelihood activities of the communities, although it is not practised in a highly commercialised form. Fish is an important part of the Tripuri community's diet; which requires diverse fishing materials and skills, enabling them to fish in different seasons irrespective of the depth of rivers or streams. The number of households possessing fishing equipment varies from one community to another. Fishing equipment includes *Dhu*, *Slam*, *Phaukhhuai*, *Jigra*, *Dula*, fishing nets, and electric fishing device (electro-fishers). The *Dhu* (Figure 8A), a basket trap, is the most common fishing tool, owned and used by 28 percent of respondents. Among the native Reang community, 100 percent of the sample households owns a *Dhu* (Table 5). The *Slam* (Figure 8B), a large bamboo net-like material that is used to dip into and lift out of water to catch fish, similar to the Chinese fishing technique. It is owned by 26 percent of the total sample households. The *Phaukhhuai* (Figure 8C), similar to the *Slam*, but unlike *Slam* it is used for bailing out water in the lower stream after constructing a small temporary dam upstream to enable fishing. This tool is owned by only 4 percent of the total

sample households which is, 25 percent of native Reang and 14 percent of Kalai households because Phaukhhuai is replaced by alternate materials. The *Jigra* (Figure 8D) is a tool with a cluster of sharp, pointed teeth, used to spear fish. It is rarely used or owned because it requires considerable skill and is only effective when fish are abundant. It is owned by just 1 percent of the total sample, found only within the Jamatia community. The *Dula* (Figure 8E), an enclosed basket for storing fish, is owned by 8 percent of the total sample households. At community level 59 percent among Tripura, 17 percent Reang, 14 percent Kalai, and 9 percent Jamatia. Fishing nets are used by only 5 percent of the total sample households, 9 percent among the Tripura, 7 percent among the displaced Reang, and 25 percent among the native Reang. The electro-fisher is a device that passes electric current to water, temporarily stunning fish which are caught using a net. It's the most uncommon fishing device, owned by only 1 percent of the sample households, belonging to the native Reang community.



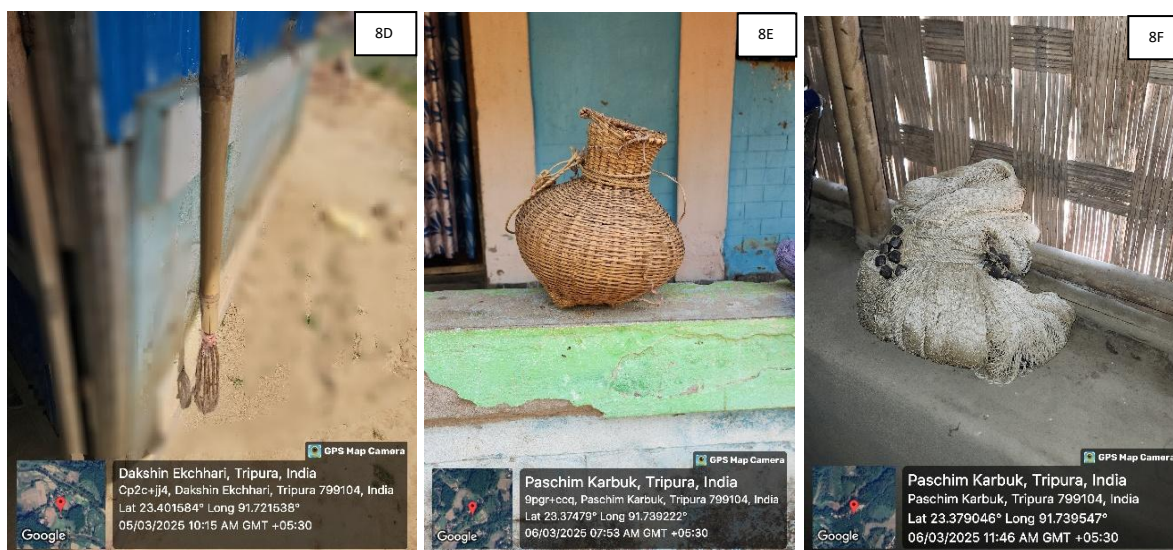


Figure 8A: Dhu; Figure 8B: Slam; Figure 8C: Phaukhhuai; Figure 8D: Jigra; Figure 8E: Dula; Figure 8F: Fishing Net
Photographs taken by Reang, K, March 2025

The study reveals that fishing materials are more commonly owned by the poorer communities who settle by the stream. There are several small streams that pass through the villages of the native Reang, Jamatia, Tripura, and Kalai; therefore, these communities have some fraction of their households owning fishing materials. Only a few members of the community are engaged in fishing at certain seasons therefore, fishing is not taken as the main occupation but for self-consumption.

About one third of the communities continue fishing in various ways which is either using fishing trap that is *Dhu* or fishing net. It is more common among the native Reang, Jamatia and Tripura. While the Noatia and Murasingh community have almost zero households that practices fishing. Table 5: Fishing materials across communities in percentage

Materials	All Communities	Community								Noatia
		Tripura	Displaced Reang	Native Reang	Kalai	Jamatia	Uchoi	Debbarma	Murasingh	
Dhu	28	18	7	100	14	82	0	9	18	0
Slam	26	27	0	75	14	55	18	0	45	0
Phaukhhuai	4	0	0	25	14	0	0	0	0	0

Jigra	1	20	0	0	0	9	0	0	0	0
Dula	8	59	0	17	14	9	0	0	0	0
Fishing Net	5	9	7	25	0	0	0	0	0	0
Electro-fisher	1	0	0	8	0	0	0	0	0	0

Source: Field survey, March 2025

Brewing

Rice beer is traditionally the main beverage of the Tripuri communities which is offered to guests and sold domestically; it also has health benefits for the consumers (Debbarma et al, 2020). Materials used in brewing include *Bati*, a pot that is place on the stove with all the ingredients in it, and *Batimkhrouh*, a lid used to cover the *Bati* (Figure 9A & 9B). The lid is sealed airtight with mud and cloths and has a narrow opening that allows vapour to pass through. *Sobasho*, a tube, which directs the vapour from the *Bati* to either a *Bati-tuk* or a *Gola*. Both *Bati-tuk* and *Gola* serve the same purpose, cooling and condensing the vapor. Different communities use either one of these for the condensation process.



Figure 9A & 9B: Rice beer being brewed
Photographs taken by Reang, K, March 2025

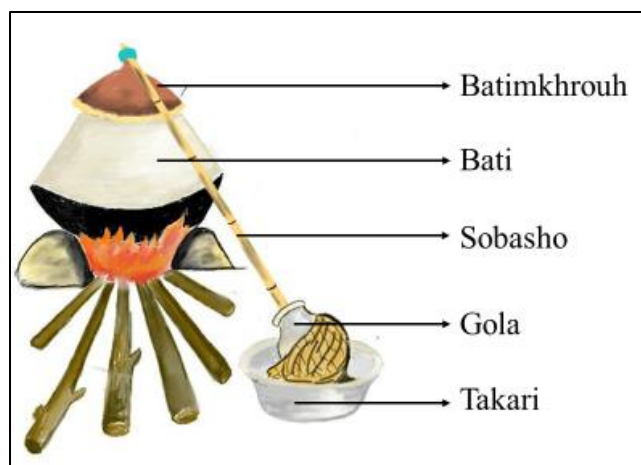


Figure 10: Diagram of brewing materials
Source: Sketch by Reang, K

Among households of other communities, 63 percent (Table 6) possess brewing materials. In most communities, at least half or more of the households own such materials. However, among the Uchoi community, brewing is not practised at all, and no households possess brewing equipment or materials. This is because the entire samples of the Uchoi population in the sample area are Christians, who neither perform rituals requiring rice beer nor engage in brewing.

Table 6: Brewing materials across communities in percentage

Materials	All Communities	Community								
		Tripura	Displaced Reang	Native Reang	Kalailai	Jamatia	Uchoi	Debbarma	Murasingh	Noatia
Bati	63	45	40	100	100	36	0	82	82	100
Bati Mkhrouh	63	45	40	100	100	36	0	82	82	100
Sobasho	63	45	40	100	100	36	0	82	82	100
Bati tuk	50	45	7	42	86	36	0	82	82	100
Gola or Takari	13	0	33	58	14	0	0	0	0	0

Source: Field survey, March 2025

The materials used for brewing rice beer are common among communities that either practice brewing as an occupation, consume rice beer as a beverage, or require it for rituals and festivals. Among the Tripuri, rice beer holds cultural, spiritual, and economic significance, playing a vital role in their socio-cultural life (Ghosh, 2016). Brewing continues to thrive, with nearly two out of every three Tripuri households engaging in it, except for the Uchoi community. For many Tripuri women, brewing rice beer remains a major source of income to support household needs.

Weaving

Traditionally woven garments remain one of the preferred attire choices for Tripuri women, worn on every day, various occasions and functions. The Tripuri loom is set up on the ground, with the warp supported at one end by a structure using the *Rimkhrouh*, and at the other end by the *Spaing* (or backstrap) attached to the weaver's back (Figure 11B & 12). The materials used are presented in Figure 11B and 12. Among which the most important weaving tools is the *Nawasa* (string heddle), a small piece of bamboo used to create a gap between the warp (vertical threads) so the weft (horizontal threads) of spindle which is in the *Thuri*, can pass through. The *Risam* or *Rwsami* is a wooden reed used to push the weft into place after each pass through the warp. The *Natai* (Figure 11A) is similar to a spinning wheel, rotating to wind yarn into a ball or bundle ready for weaving. The *Masasu*, is a porcupine quill, used to pierce woven fabric during weaving. Fewer households now own *Masasu* as hunting porcupines is illegal and the availability of alternatives such as sewing needles. The *Rwsami* is traditionally made from palm wood, but since palm is no longer widely available, other types of wood are now used. The *Spaing*, once made from leather, is now often replaced by plastic or bamboo because leather is least commonly available.

Table 7: Weaving materials across communities in percentage

Materials	All Communities	Community								
		Tripura	Displaced Reang	Native Reang	Kalai	Jamatia	Uchoi	Debbarma	Murasingh	Noatia
Rwsami (Other Wood)	55	27	0	50	71	45	82	82	64	100
Rwsami (Palm)	34	45	100	50	0	27	0	18	27	0
Spaing (Leather)	41	27	100	58	29	36	55	36	0	0
Spaing (Plastic)	44	45	0	8	43	36	27	73	82	100
Spaing (Bamboo)	11	18	0	25	0	0	0	27	27	0
Riwasa or Nawasa	88	64	100	100	71	73	82	100	91	100
Rimkhrouh	85	64	100	100	71	64	64	100	91	100

Natai	65	64	33	83	43	55	73	91	64	82
Thuri	80	55	73	92	57	73	82	91	91	100
Masasu	83	55	87	92	71	64	82	100	91	100

Source: Field survey, March 2025

Across all communities, a high percentage of households possess weaving tools and materials. Since the *Riwasa* and *Nawasa* are common and similar, 88 percent (Table 7) of total households owns them. Even the Tripura community, which have the lowest number of weavers, shows over 64 percent ownership of these materials. The *Thuri* is less essential because the weft can be inserted directly with a spindle, so ownership stands at 80 percent, lower than *Riwasa* or *Rimkhrouh*. The *Natai* (Figure 11A) can be borrowed when needed, as it is not used throughout the weaving process, which explains why only 65 percent of households own one.



Figure 11A: Natai



Figure 11B: Women Weaving

Photographs taken by Reang, K, March 2025

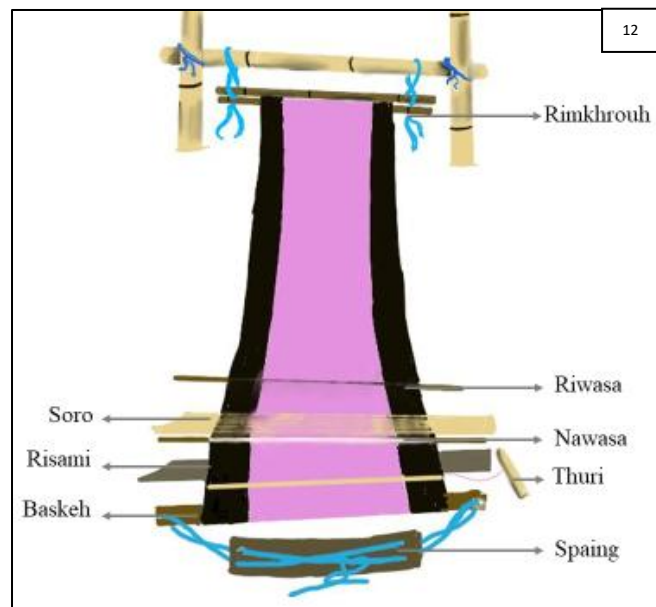


Figure 12: Diagram showing different weaving materials as shown in Figure 11B
Source: Sketch by Reang, K

Resource availability influences the materials used for making *Risam* or *Rwsami*. In the total sample, 55 percent (Table 7) of households use *Risam* or *Rwsami* made from other types of wood, while 34 percent still use palm wood (*Swmal*) *Risam* or *Rwsami*. Among the Noatia, 100 percent of them use *Risam* or *Rwsami* made from other wood because of the unavailability of palm wood in their village. In contrast, among displaced Reang households, 100 percent use palm wood *Risam* or *Rwsami*, as it is available in their place of origin. Similarly, materials for making *Spaing* have diversified 44 percent using plastic, 41 percent use using leather, and 11 percent using bamboo. This demonstrates how the availability of materials have led to changes in the tools' materials, yet the Tripuri continue to weave by adapting to the resources at hand.

For the Tripuri, weaving is more of a necessity than a luxury. Traditionally, garments were woven for household use and not for sale. It remains the most important and common traditional activity practised today, with around four fifths of the community still engaged in weaving. However, commercialisation have brought changes mass production is now common, and weaving have become a significant source of income for Tripuri women.

Hand-crafting materials

There are various materials that are used in handicrafts and basketry but such materials are not solely used for the handicraft like the *Da (Dao)* which is used for cutting (Figure 13A). Hence, the presence of *Da* alone cannot conclude that the member of that household practices handcrafting. The other is *Mukhramkreng* (Figure 13B) that is used solely for handicrafts by skilled craftsmen in handicraft.

Table 8: Handicraft materials across communities in percentage

Material s	All Commu nities	Community								
		Trip ura	Displaced Reang	Native Reang	Ka lai	Jam atia	Uc hoi	Debb arma	Muras ingh	Noa tia
Mukhra mkreng	10	9	0	33	0	18	9	0	0	18
Da (Dao)	100	100	100	100	100	100	100	100	100	100

Source: Field survey, March 2025

Da (Dao) is own by 100 percent (Table 8) of the sample community but only 10 percent of the total sample household have *Mukhramkreng*. The native Reang have the highest percentage of the population owning this material that is 33 percent, followed by Jamatia and Noatia with 18 percent and Tripura with 9 percent of the households owning it.

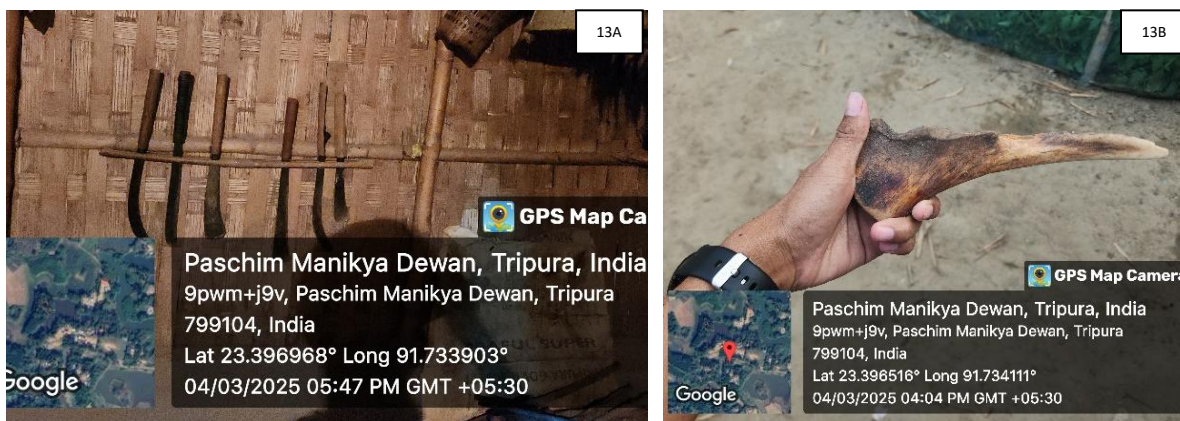


Figure 13A: Da; Figure 13B: Mukhramkreng
Photographs taken by Reang, K, March 2025

Handcrafting is a dying tradition because the younger generation does not practice it. Even today, the elderly male population of society continues to practice hand-crafting. The situation could be attributed to a decline in demand for handcrafted materials, which is occurring as materials change caused by the change in economic activities. Furthermore, there is no effective

marketing that promotes handicrafts as decorative items. As a result, the younger generation abandoned traditional economic activities in favour of alternative ones.

Rubber plantation

Rubber plantation materials are rubber sheeting roller and rubber tapping materials which is required by every households who practice rubber plantation, hence clubbed together instead of classifying them. The number of households owning rubber plantation materials is proportional to the number of households practising rubber plantation that is 59 percent of the sampled population. Rubber sheeting rollers are owned by 20 percent (Table 9) out of 59 percent of sample households practising rubber plantation. It is highest among the Debbarma and native Reang with 55 and 50 percent households respectively as they comparatively have larger plantation areas. These materials are not there among the displaced Reang as none of them have rubber plantations.

Table 9: Rubber plantation materials across communities in percentage.

Materials	All Communities	Community								
		Tripura	Displaced Reang	Native Reang	Kalai	Jamatia	Uchoi	Debbarma	Murasingh	Noatia
Rubber sheeting roller	20	18	0	50	29	9	0	55	18	9
Tapping materials	59	82	0	92	57	73	0	73	91	82

Source: Field survey, March 2025

Rubber plantation is the major economic activity that are practised by every Tripuri communities who owns plot of upland area. There is a shift from the traditional shifting cultivation to the rubber plantation among the Tripuri which happens because of the effort made by the government encouraging the Tripuri communities to shift towards plantation which has more sustainable source of income. Rubber plantation although provides a sustainable income also reduces the green space which erstwhile provides with many herbs and wild vegetables which use to supplement the food for the communities (Pandey, 2020).



Figure 14: Rubber sheeting roller
Photographs taken by Reang, K, March 2025

Conclusion

In conclusion, the material culture of the Tripuri communities is deeply shaped by the various economic activities they are engaged in, their dietary habits, rites and rituals, cultures practised as reflected in the diverse range of materials used across sectors such as agriculture, livestock rearing, fishing, brewing, weaving, handicrafts, and plantation work. Over time, these materials have evolved in response to geographical and environmental conditions, changes in lifestyle, availability of resources, and technological advancements.

In agriculture, the shift from traditional tools such as the ox-driven plough to modern equipment like power tillers highlights the growing mechanisation of farming, particularly among communities with larger agricultural landholdings. While traditional implements such as the sickle, spade, bailing tools, and *Langa* still retain cultural and practical importance, newer materials like jute sack bag, nets, tarpaulins, and power tillers are becoming increasingly common.

In livestock rearing, materials such as *Takhuk* (chicken cages) and pigsties are largely common, although their prevalence varies depending on the type of livestock and household occupations. For example, the native Reang community heavily involved in pig rearing have a higher percentage of households with pigsties compared to other groups.

Fishing materials, though less widely owned, remain important in communities situated near rivers and streams. Traditional traps such as *Dhu* and *Slam* are gradually being replaced by

modern fishing devices, and in some communities, fishing have shifted from a livelihood to a leisure activity.

Brewing equipment is common across most communities except the Uchoi, where brewing is absent as religion change. In communities where it is practised, brewing continues to hold cultural, spiritual, and economic value, particularly for women.

Weaving remains a thriving tradition across all Tripuri communities despite the availability of cheaper market alternatives. The lack of authentic substitutes for traditional garments compels the Tripuri to weave their own clothing, sustaining this cultural practice.

In contrast, handcrafting materials are on the brink of extinction, largely because younger generations have shifted to other forms of livelihood. Brewing and weaving, female-centered activities continue to flourish, while handcrafting historically male-centered have declined. This is linked to male migration to urban areas in search of alternative income sources, leaving women to carry forward traditional economic practices at home.

Rubber plantation have emerged as the most common economic activity, replacing traditional cultivation of food crops with cash crops. This shift has contributed to the decline of other traditional economic activities.

The evolution of materials, such as the replacement of leather with plastic in weaving tools or the use of modern roofing materials in animal shelters, reflects both a shortage of traditional raw materials and the need for sustainable use of available resources.

Ultimately, the variation in material culture among the Tripuri communities reflects not only geographical and cultural diversity but also their adaptability to external influences. However, it also reveals the challenges they face in maintaining cultural continuity in the face of economic, environmental, and social change.

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Declaration

The authors declare that this manuscript is their original work and has not been published or submitted elsewhere, nor is it currently under consideration for publication elsewhere. The content has not been copied or plagiarised from any other source. All sources used have been appropriately cited and acknowledged. All ethical protocols were followed; The data collection does not involve any experiment on the participant but is limited to schedules and questionnaire and open ended questions; participants gave informed consent, and data were anonymised to protect confidentiality.

Conflict of Interest

The authors declare that they have no competing financial, professional, or personal interests that could influence the design, execution, analysis, or interpretation of this study. No funding was received from agencies or organisations with vested interests in the outcomes of this research.

Reference

- Akerman, K., Birch, B., & Evans, N. (2014). Notes on the contemporary knowledge of traditional material culture among the Iwaidja—Cobourg Peninsula, Arnhem Land, Northern Territory 2005–2006. *Transactions of the Royal Society of South Australia*, 138(2), 181–213. <https://doi.org/10.1080/03721426.2014.11649008>
- Bhattacharjee, S., Sarkar, A., Devarani, L., & Feroze, S. M. (2016). Temporally changing livelihood pattern of rural people: A case study on tribes of Tripura. *Environment and Ecology*, 34(4A), 1834–1838. <https://www.researchgate.net/publication/328225462>
- Crane, D., & Bovone, L. (2006). *Approaches to material culture: The sociology of fashion and clothing*. *Poetics*, 34(6), 319–333. <https://doi.org/10.1016/j.poetic.2006.10.002>
- Das, S., & Das, M. (2014). Income, migration and social adjustment of the tribal people in Tripura: A case study of the ‘Tripuri’ tribe. *Space and Culture, India*, 2(1), 5–13. <https://core.ac.uk/display/191037046>
- Debbarma, S., Bhattacharjee, S., Bhattacharjee, S., & Bhattacharjee, S. (2020). Traditional method of rice-beer preparation by Tripuri tribe at Tripura, India. *International Journal of Food and Nutritional Sciences*, 11(10), 3894–3899. <https://www.researchgate.net/publication/379573283>
- Eerkens, J. W., & Lipo, C. P. (2005). *Cultural transmission, copying errors, and the generation of variation in material culture and the archaeological record*. *Journal of Anthropological Archaeology*, 24(4), 316–334. <https://doi.org/10.1016/j.jaa.2005.08.001>
- Eze-Uzomaka, P., & Oloidi, J. A. (2017). Modernisation and its effect on cultural heritage in South-Western Nigeria. *AFRREV IJAH: An International Journal of Arts and Humanities*, 6(2), 81–93. <https://doi.org/10.4314/ijah.v6i2.7>
- Ghosh, S., Rahaman, L., Kaipeng, D. L., Deb, D., Nath, N., Tribedi, P., & Sharma, B. K. (2016). Community-wise evaluation of rice beer prepared by some ethnic tribes of Tripura. *Journal of Ethnic Foods*, 3(4), 251–256.
- Government of Tripura. (2023). *Geographical profile*. Official Website of Tripura State Portal. <https://tripura.gov.in/geographical-profile>
- Gupta, S. S. (2020). *Relation between nature and tribal culture in Tripura*. Tribal Research and Cultural Institute, Government of Tripura

- Hirwade, M., & Hirwade, A. W. (2012). Traditional knowledge protection: An Indian perspective. *DESIDOC Journal of Library & Information Technology*, 32(3), 240–248. <https://doi.org/10.14429/djlit.32.3.240>
- Hossain, J. (2018). Environmental cultures of Tripuri tribe. *Research Review International Journal of Multidisciplinary*, 3(8), 535–538. <http://www.rrjournals.com>
- Jiang, Y. (2024). The concept of material culture in cross-cultural communication and its application in contemporary art. *SHS Web of Conferences*, 187, 04022. EDP Sciences. <https://doi.org/10.1051/shsconf/202418704022187>
- Kandpal, P. C., & Kumar, P. (2024). Culture and modernisation: Adaptation and resilience of Bhutia tribe of Uttarakhand. *Journal of Mountain Research*, 19(2), 15–24. <https://doi.org/10.51220/jmr.v19-i2.3>
- Nag, D. (2021). Impact of Globalisation on communication and culture: The Indian scenario. *Glocalism: Journal of Culture, Politics and Innovation*, 2021(3), 1–26. <https://doi.org/10.12893/gjcpi.2021.3.5>
- Pandey, D. K., Adhiguru, P., Sah, U., Devachandra, N., Dubey, S. K., & Deo, C. (2020). Is rubber monoculture banishing agrobiodiversity and happiness? Evidences from shifting cultivation landscape of Tripura, northeast India. *Current Science*, 118(1), 108–113. <https://www.jstor.org/stable/27138643>
- Paul, S. K., & De, S. (2022). Material culture and mass media: A study on the changing status among the tribals. *South Asian History, Culture and Archaeology*, 2(1), 157–166. <http://www.esijournals.com/sahca>
- Roy, G. (2024). Mapping tradition and modernisation: A study on the evolution of costumes of the Tripuri and Reang women in Tripura. *ShodhKosh: Journal of Visual and Performing Arts*, 5(1), 516–532. <https://doi.org/10.29121/shodhkosh.v5.i1.2024.631>
- Sarkar, P., & Bairagi, N. (2023). Evolving identity: A study on changing choices in the clothing of tribal women of Tripura, India. In *IASDR 2023: Proceedings of the International Association of Societies of Design Research Conference* (pp. 1–16). <https://doi.org/10.21606/iasdr.2023.499>
- Shennan, S. J. (2000). *Population, culture history, and the dynamics of culture change*. *Current Anthropology*, 41(5), 811–835. <https://doi.org/10.1086/317403>

- Singh, B., & Kumar, A. (2024). Examining the impact of digitalization on Indigenous cultural heritage preservation in India. *Enigma in Cultural*, 2(1). <https://doi.org/10.61996/cultural.v2i1.59>
- Tegegn, D. A. (2024). The role of science and technology in reconstructing human social history: Effect of technology change on society. *Cogent Social Sciences*, 10(1), 2356916. Taylor & Francis. <https://doi.org/10.1080/23311886.2024.2356916>
- Thomas, J. (2007). *The trouble with material culture*. In C. Tilley, W. Keane, S. Küchler, M. Rowlands, & P. Spyer (Eds.), *Handbook of Material Culture* (pp. 1–11). Sage Publications.
- Wani, H. A. (2011). Impact of globalisation on world culture. *Research Journal of Humanities and Social Sciences*, 2(2), 33–39. ISSN 0975-6795.