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EXPLORING THE MATERIAL CULTURAL TRADITION OF COWRIE SHELLS AMONG THE DIMASAS OF ASSAM

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Abstract

Material cultural traditions the integral part of Tribal cultural heritage which get transmitted throughout generations. The Dimasas are dwelling in the states of Assam and Nagaland. They have a number of mythical beliefs and stories passed on throughout generations, mostly by oral traditions. Ranging from the story behind the origin of human beings to those reigning of the Dimasa kings, from the connection with characters of the Mahabharata to the stories of the common Dimasa people, these bear immensely important symbolic meaning in the cultural tradition of the Dimasas. In this regard, Cowrie shells used to play a very significant symbolic role in the daily livelihood activities of the Dimasas. They were used in medium of exchange, amulets and as well as a medicine. How far such traditions are being followed today by them? Whether the younger generations are well aware about these traditions or it is getting merely confined among their parental generations only. The present study attempts to highlight some of those significant myths, legends and folktales, as well as the significance of Cowrie shells, as noticed among the Dimasas of Karbi Anglong and Dima Hasao district of Assam. The paper is mainly based on primary data collected through empirical field work by applying appropriate methods.

Key Words: Myths, Legends, Oral tradition, Shamaiba, hoja, beads

Introduction

In its broadest sense, “culture” refers to the whole range of human activities which are learned and not instinctive, and which are transmitted from generation to generation through various learning processes.

Often the physical products of human activity are included under the term as “material culture” (Beattie, 1964: 20).

Since prehistoric times, man had to develop some technology by which he did exploit the natural resources available in the environment and fulfilled his aspirations for better living. In the wake of technological know-how man’s cultural life began. At the beginning man began to make tools from stone, bones, bamboo, cane etc. From this simple technology man had developed a complex technology which had led it to the modern civilization. This view has been extended and yet put in a summarized form by David Bidney (1953) who defined culture as the products of agrofacts (products of cultivation), artifacts (products of industry), socifacts (social organization) and mentifacts (language, religion, art and so on), (Beattie, 1964: 22). Culture has two aspects-material and non-material. Material culture refers to the physical objects, resources and spaces that people use to define their culture. Manufactured objects such as tools, weapons, means of communication, clothes, utensils, houses and so forth are manifestations of material culture. Material culture is the physical evidence of a culture in the objects and architecture they make, or have made. The term tends to be relevant only in archaeological and anthropological studies, but it specifically means all material evidence which can be attributed to culture, past or present. Material culture studies are an interdisciplinary field telling of relationships between people and their things: the making, history, preservation, and interpretation of objects.

The term ‘material culture’ emphasises how apparently inanimate things within the environment act on people, and we acted upon by people, for the purposes of carrying out social functions, regulating social relations and giving symbolic meaning to human activity.

Objects vary in scale and size, ranging from simple items like a pencil, key, coin, or spoon to complex, interconnected entities such as an airliner, motor vehicle, shopping mall, or computer. Traditionally, however, the term material culture has referred to smaller objects that are portable. Although scholars from a variety of disciplines have studied objects, their uses and meanings since the beginnings of modern social science scholarship, it is only in relatively recent times that the field of 'material culture studies' has been articulated as an area of inquiry as viewed by Woodward (2007:16).

In the material culture of the Tribal people, beads are immensely important. It can be regarded as a tiny, ornamental object that is used to pierce with a small hole through a specialized thread or flexible wire and the sizes of a bead are generally ranges from 1 mm 3 (0.039 in) to over 1 cm (0.39 in) in diameter (Chowdhury, 1991:228). Beads are minute, attractive and colourful frequently standardized in expensive and often quite beautiful which can be worn as necklaces as ornaments that can be arranged in continual pattern, known to be universal and one of the oldest appearance of human behavioural tradition i.e., from the time immemorial usage of bead is a common mode of ornamentation of the people Regarding materials, beads are of different varieties such as ivory, animal teeth, shell, wood, stone, clay, mineral, glass etc. of different shape, size and colour. Ancient beads of different time period are still visible as beaded ornaments among different tribes mostly in Asian part of regions in their social life (Francis, 1982:1-3).

Beads have been the tiniest artefacts that human ever had as antique in their cultural and historic context. The study on beads has occupied a long journey as an interdisciplinary field with its own intend and technique (Francis, 1987:7). In India traditional beaded necklaces used by the tribal hierarchy with their material usage and techniques of making have undoubtedly attract and helpful to archaeologists and ethnographers in order to interpret material set-up and human interference in the life pattern of a society (Deo, 2000:14). In any society, a bead becomes futile or meaningless object if there is no personal consciousness (Bednarik, 1998:51). The findings of excavated beads from Harappa which was analyzed on the basis of ranking on raw material and technology i.e. the terracotta and bone beads made from simple technology and material locally available were regarded as the lowest rank. On the other hand, shell, unfired steatite, stone beads made from exotic raw material with relatively simple technologies were of middle rank and beads made of fired steatite, faience, carnelian, copper, gold with complex technologies were of the highest rank. Likewise, the ranks were also given to this bead makers or artisans (Kenoyer, 1991:84-5). In ancient time beads were interpreted and utilized in social respects as well as religious matter (Dubin, 1987:9).

Beads are a valuable object which reveals and help to reconstruct the cultural history of a society (Deo 2000: 1), which has its own symbolic interpretation.

Anthropologists explore the symbolic meanings of an objects and action which is attached to different cultural behaviour through its own observation and techniques (Rosman et al. 1995:105). One of the symbolic object Cowrie shell was a main accumulation in Maldive Island in Indian Ocean which was traded in early times to Southeast Asia and beyond. It is clear from the earlier research that the Cowrie shells means to valuable object (Campbell, 2003:43).

It is interesting to know that far beyond the sea shore in different parts of the world the two types of Cowrie shells - *Cypraea moneta* and *Cyparea annulus* plays a significant role as a symbol of wealth, medium of exchange and religious accessory since time immemorial 4 (Bhattacharjee, 1983:26). Towards the 19th century these marine Cowrie shells were traded from Indian Ocean by some traders to the tribes of Northeast India having its monetary as well as symbolic functional value (Campbell, 2003:64). It is evident from the archaeological research that the Dimasa tribe of Assam uses Cowrie shell as a significant value (Chowdhury, 1991:76).

A Brief Note on the Dimasas

The Dimasas are regarded as one of the autochthonous communities who are dwelling in the Northeastern region of India. They are mostly settled in the two hills districts of Assam that is, Dima Hasao and Karbi Anglong as well as in the neighbouring district of Nagaon, Hojai in Assam. They are patriarchal in nature and follow the patrilineal rule of descent respectively.

Every Dimasa people observe the rites and rituals in their socio-religious life under the guidance of village priest called as 'Hoja'. Moreover, the whole Dimasa population is the believer of 12 religious areas or territorial jurisdiction called as 'Daikho' in which the God and Goddesses reside in that particular 'Daikho' to protect them and control their destiny (Bordoloi, 1984:12).

The Dimasas propitiate a number of benevolent spirits; they also believe in malevolent or evil spirits who have to be appeased in order to prevent themselves from falling under their wrath of harm (Danda,1978:7). The Dimasas had their ancient capitals at Dimapur, Maibang and Khaspur each of which still bears significant archaeological ruins, proving of the rich architectural and royal grandeur of this group of people (Barua, 1980:2).

Objectives

The main objective of the paper is

- To know about the origin of cowrie shells among the Dimasas.
- To know in detail about the material cultural significance of cowrie shells among the Dimasas.
-
- To find out, whether cowrie shells have any significant role in their traditional healing practices.

Methodology

The paper is mainly based on primary data. In this regard, field work was conducted from January 2023 to May 2023 in Dhansiri village of Karbi Anglong district of Assam. Further, from January 2024 to July 2024, in the Dishu Raji, Topodisa villages under the Haflong sub division and in the Semkhor village under the Maibang sub division of Dima Hasao district, Assam. The said villages were one of the oldest settlements of the Dimasa Tribal group. The study was done on 579 families, with a total population of 2937. The study was done on all the families, to know about their ideas and knowledge related to their oral traditions as associated with the Cowrie shells. Interviews were taken on the folk performers and traditional healers, who had adequate knowledge and practices of Cowrie shells, as used in their different social ceremonies and cultural practices. As most of the Dimasa oral narratives lack proper documentation, it was necessary to have a face-to-face conversation with the resource persons, who were mostly elderly persons, so that the required data on the pristine myths, legends and folktales could be properly collected.

Findings and Discussion

A] Myth related to cowrie shells

It is believed that during the period Mahabharata in the Dwaparyug the Dimasa ancestors of this region had to buy land from the Pandava brother Sahadev, as he was the owner of the entire land. The medium of purchase was against the gold and silver. During that time when Bhisma died, his death ritual was conducted by the Dimasa ancestors after the purchase of a plot of land against gold and silver. They felt that, in this way upto the arrival of Kali yug there would be noted shortage of gold and silver. Thus, they kept the ritual of buying the land with Cowrie shell instead gold and silver.

B] Significance of Cowrie Shells

Symbolic meaning of the Cowrie shell : The Dimasas strongly believed that the Cowrie shells were created by their supreme Deity Shivrai or Kechai Khaiti. The pointed oval parts of a shell symbolizes the origin and terminal end of the earth span. The small marks on the body of the shell symbolizes the different yugasor time span of the earth. The hollow mark in between the shell, symbolizes the smooth passage different natural resources like air, water, light through the shell, which are the prime natural resource of human survival on the earth. Such resources are essential both for their body, for their cattle wealth as well as for their food through agriculture.

Cowrie shell as bead : 6 Cowrie shell 'Khauthi' is a marine object with a size of 1 cm. Among the Dimasas, 'Khauthi' is valued as a very precious object and belief to be God of ocean or sea. It has a deep significance as beads especially for babies and are used to make amulet named as, 'Jingsdu' in which one or three Cowrie shells are stringed with black cotton thread along with three circular and one rectangular shaped black colour glass beads (Plate-1). It is tied around the waist of a baby in belief as a symbol to eradicate the evil eye or evil spirit 'Sagain Madai'. According to religious belief among the Dimasas, when the evil eye tried to harm or attack the baby, they return back by looking the Cowrie shell tied around the waist of a baby that there is a Deity of Ocean.

Cowrie shell in historic trade : Historically different kingdoms of Assam had a long trade relation with Koch kingdom. The Dimasa ancestors had the trade with Koch kingdom directly. Goods were exchanged against the coins by the Koch traders, whereas the Dimasas used to exchange against their Cowrie shells. In the Garo village of Cooch Behar district, some evidences of these shells have been found. The concerned people told that, the shells were available to them since more than one hundred years and even their parents saw those during their childhood days.

Importance of Cowrie shell in Shamanaiba ritual : Every Dimasa household depends on 'Shamanaiba' ritual, which is a religious practice performed by a priest known as 'Hoja'. To perform this religious practice only a male could be a priest, who is known to be sacred. Among the Dimasa, any social problem related to family or community is first of all suggest to perform these ritual 'Shamanaiba'. Ritual 'Shamanaiba' is of two types- 'Shamanaiba' through stem of a plant and another 'Shamanaiba' through Cowries 'Khauthi'.

The ritual is practiced to foretell any malevolent effect, any health disorder or any problems related to social life.

With the prediction of the problem, the priest 'Hoja' also suggest the solution which might be any rituals including sacrifices or offering prayer to 'Sibrae' to eradicate the problems. The ritual 'Shamanaiba' through 'Khauthi' is performed by the priest 'Hoja' early in the morning in an empty stomach facing towards the direction of sunrise. Most of the rituals among the Dimasa community are foretold by the priest 'Hoja' through ritual 'Shamanaiba'. The material needed to perform 'Shamanaiba' ritual is sacred machete called as 'Sheng', 4 cowrie shells 'Khauthi', basil leaf or "Tulsi" to sprinkle the holly water.

To perform the 'Shamanaiba' ritual, at first the place where the ritual needs to be selected and to be demarcated with an imaginary line (Plate-2). Then the selected place is made sacred through the sprinkling of holly water with basil leaf "Tulsi" around that imaginary line. Then the sacred Machete is erected in the middle towards the sun rises in which the 4 cowries are repeatedly thrown in that sacred place through uttering prayer by the priest 'Hoja' within that imaginary line and to foretell or predict the problem of the person (Plate-3). The priest 'Hoja' with his divine power offer prayer to the Deity 'Sibrae' and use to predict the problems accordingly.

For example, if a baby or child is not healthy and suffering from fever for days, even after medical consultation, then the family members prefer to consult with their village priest to see the cause of the problem through 'Shamanaiba' ritual. According to his detected problem, adequate solution is being suggested by the priest. Further, among the Dimasas, if their familial relations, often becomes quarrelsome with each other, then they use to depend on 'Shamanaiba' ritual to find out the possible cause and adequate solution.

If a person has lost their property like animals, fowl, jewelry, cloth etc. then they prefer to consult with the priest and they use to find out the lost valuable through this ritual only. Further, the 'Pharakhoba' ritual is the outcome of 'Shamanaiba' ritual. In astrological term if the one of the planet or 'Naksatra' is not in a good position, then the person might face a failure in success.

To overcome these obstacles, the 'Pharakhoba' ritual is organized by the victim to overcome the problem and to regain success in life. In this ritual the cowrie shells play a symbolic behaviour as a medium of exchange. This ritual is of three types Pharamashni (7 cowries), Pharamasugu (9 cowries), Pharamajra (15 cowries). It is belief among Dimasa that the bad fortune of a person is exchanged with a cowrie shells to the God of Planet 'Naksatra' in order to return the good fortune back to their body. Here, the Cowries symbolizes precious object of God of Ocean as a medium of exchange.

Photographs



Plate-1: Cowrie shell 'Khauthi' as amulet 'Jingsdu'

Use of Cowrie shell in the name giving ceremonies of a child : Among the Dimasas, children use to get their surname from their father and clan is transmitted to them from their mother. In a Dimasa family, after 3 to 4 months of birth, the name giving ceremony of a child use to get conducted. During the process of name giving ceremony, the day of birth is specially taken into consideration.

If a child is born on the odd day of the week that is on Monday, Wednesday, Friday, Sunday then one Cowrie shell used to be placed on the plantain leaf and kept in front of the child during the ritual related to the name giving ceremony. On the other hand, if a child is born on the even day of the week that is on Tuesday, Thursday and Saturday then two Cowrie shell used to be placed on the plantain leaf and kept in front of the child during the ritual related to the name giving ceremony. After the performance of the name giving rituals, the traditional Dimasa priest or Hojause to tie up those number of Cowrie shells into the waist of their children with a black thread. It is believed that such Cowrie shells will keep the child protected from the adverse effects of different evil spirits and evil agents. This is used to remain tied upto 5 or 7 years of their age compulsorily.

Use of Cowrie shell in the marital rituals : In the marital ritual of the Dimasas, the use of Cowrie shells are immensely important. As per the odd and even day of birth in the week, specific number of Cowrie shells are tied up with a yellow or red thread for both the bride and the groom.

For example, if the bride or groom is born on Monday, 10 Wednesday, Friday or Sunday then one Cowrie shell is to be tied up. Again, if the bride or groom is born on Tuesday, Thursday or Saturday then two Cowrie shells are to be tied up. The tied up Cowrie shells are to be kept individually by the bride and groom during their entire ritual process of the marriage. It symbolizes the blessings of their supreme Deities for a happy and prosperous married life.

Significance of Cowrie shell in oath and ordeal : In the traditional political organization of the Dimasas, the Cowrie shell is immensely important. They have their own method to select their traditional village headman, which is now also known as Sarkari Gaon Bura. Although he has to follow the administrative guidelines of modern political organization in a number of cases (particularly on financial matters), still in a number of cases they use to follow their age old traditional customary judiciary. Once the headman is selected by the villagers, he has to take an oath and ordeal related to assurance of village protection and ensurance of justice to each and every villager. The oath is taken in the presence of their traditional priest Hoja, with a piece of plantian leaf, a bottle of their traditional country liquor Judima and a pair of Cowrie shell. Similarly, during the process of trial both the victim and offender are supposed to take the oath with plantian leaf and a Cowrie shell to state the exact matter of fact, without any sort of lie or distortion of facts, failing which they will be punished by their supreme Deity or may face allied misfortunes.

Significance in the selling and purchase of land : This is applicable in between the two Dimasa people only. In such cases, if a Dimasa people is interested to sell his land to another Dimasa people, then the person who is going to purchase supposed to gift a pair of Cowrie shell to the seller. Meanwhile, if the land is going to get mortgaged by the actual owner for a certain time period to another person, then the buyer will only give the money to the first person.



Plate-2: Male Priest performing 'Shamanaiba' ritual

In such cases the gift of Cowrie shell is not conducted from the side of the first person. Symbolically it has a meaning. As the Cowrie shell is culturally very significant among the studied people, so this is offering of Cowrie shell as a gift means that, for the buyer the seller is person with a graceful dignity. Meanwhile, this practice is getting much reduced in the township areas; however, in the Dhansiri and Semkhor village, this practice is well noticed.

Demarcation of village boundary : It is to be mentioned here that, in the Karbi Anglong and Dima Hasao districts, the Dimasas are dwelling with several other Tribal groups like the Karbis, Bodos, Kukis, Rengma Nagas, Hmars, Garos. On the other hand, the Dhansiri area of Karbi Anglong is noted as a hinterland with Nagaland. Often there used to be certain undocumented territorial issues in between them. To demarcate their village or territorial boundary, in the first and last homestead it is compulsory to keep a pair of Cowrie shell, as a symbol of their cultural uniqueness or ethnic identity.



Different varieties of Cowrie shells 'Khauthi'

Concluding Remarks

Cowrie shells are inseparable in the socio-cultural, socio-religious and socio-political life of the studied Dimasa people. From the historical evidence it is clear that the Cowrie shells were traded since time immemorial. This material cultural object is an integral part of their oral tradition and oral healing. The concerned people are very much psychologically depended on their traditional healers and traditional priests. They strongly believe that, to maintain social discipline, familial peace, for good health, oral traditional practices are the only way, as it is blessed by their different Deities and ancestral spirits. It has been found that, the studied Dimasa people feel very prestigious in practising their cultural traditions and oral traditions. Among the concerned Dimasa people including the young generations, it is strongly believed that, only by adhering to own cultural practices and age old oral traditions, they can keep their ethnic identity unique and specific from the other ethnic groups dwelling in their surroundings.

References

- Barua, N. N. (1980). *Dimasa Society and Their Folk Songs*. Guwahati: Janagana Press.
- Beattie, J. (1964). *Other Cultures*, London: Routledge.
- Bednarik, R.G. (1998). The Archaeological Significance of Beads and Pendants. *Man and Environment* 23(2):50-57.
- Bhattacharjee, K. K. (1983). *North East India –A Study*. New Delhi: Cosmo Publications.
- Bordoloi, B.N. (1984). *The DimasaKacharis of Assam*. Assam: Tribal Research Institute.
- Campbell, C.B. (2003). Heirloom Beads of the Naga and Kachin. *Beads: Journal of the Society of Bead Researcher* 20: 3-25.
- Chowdhury, R.D. (1991). On Three Hoards of Cowries from Assam. In: J.P. Singh (ed.), *Archaeology of North- Eastern India XVII*, pp. 228-31. New Delhi: Vikas Publishing house.
- Danda, D. (1978). *Among the Dimasa of Assam: An Ethnographic Study*. New Delhi: Sterling Publishers.
- Deo, S.B. (2000). *Indian Beads: A Cultural and Technological Study*. Pune: Deccan College Post-Graduate and Research Institute. 12
- Dubin, S.L. (1987). *The History of Beads*. London: Thames and Hudson.
- Francis, P. (1982). The Earliest Beads In India. *Ornaments* 5(4): 18-19.
- Francis, P. (1987). *Bead Emporium: A Guide to the Beads From Arikamedu in the Pondicherry Museum*. Pondicherry: Pondicherry Museum.
- Kenoyer, J.M. (1991). The Indus Bead Industry: Contributions To Bead Study. *Ornaments* 10(1): 18-23.
- Rosman, A. and P.G. Rubel (1995). *The Tapestry of Culture, An Introduction to Cultural Anthropology*. Columbia University: Barnard College.
- Woodward, I. (2007). *Understanding Material Culture*, London: Sage Publications.

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HUMAN WASTE TO ENERGY IN NORTHEAST INDIA: CHALLENGES, OPPORTUNITIES, AND FUTURE DIRECTIONS

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Abstract

Conversion of human excreta to energy would be a very promising, sustainable way to generate energy while solving major problems with waste management. Northeast India, with all its variations in geography and socio-economic conditions, presents ample scope for implementation of WTE projects. This paper will conduct an overview of the status of the current WTE technologies focusing on anaerobic digestion, gasification, and incineration which are one of the best available for energy recovery from waste. The review will take into consideration the policies that have been used to govern the WTE projects in the region in terms of the strengths and weaknesses. Lastly, this paper will touch on implications of these technologies to the local communities, environment, and energy security. It further identifies the barriers to the massive adoption of WTE technologies as infrastructural, financial, and regulatory. With these in mind, the paper provides some targeted recommendations on how to enhance adoption and scalability of these technologies through public-private partnerships, better financial incentives, and community awareness and engagement. This study has seized the exceptional opportunities of the Northeastern region of India in quest for a clean energy future and appropriate sanitation of the human excretion.

1.0 Introduction

Human waste, an often-overlooked resource, can be harnessed to produce energy through various WTE technologies. Such processes not only mitigate environmental pollution but also contribute to energy generation and resource sustainability. The Northeast region of India, comprising states like Assam, Meghalaya, and Manipur, presents unique opportunities due to its rural-urban mix and distinct topography (Choudhury, 2020). The concept of WTE is rooted in the principles of sustainable development and energy recovery. The transformation of organic waste into energy relies on biochemical and thermochemical processes that convert waste into biogas, syngas, or heat energy.

The Northeast region of India, with its unique topographical and climatic characteristics, has a significant potential for implementing WTE solutions. States such as Assam, Meghalaya, and Manipur face challenges related to waste management due to rapid urbanization in combination with extensive rural areas. WTE technologies can serve as an effective waste management solution while simultaneously addressing the region's energy deficits. For instance, decentralized biogas plants in rural areas could use human waste from community toilets and households to produce biogas for cooking or electricity. Urban centers could adopt larger-scale WTE plants employing advanced gasification or anaerobic digestion technologies to manage higher waste volumes and support municipal energy needs.

2.0 Current Waste to Energy Technologies

The primary WTE technologies include anaerobic digestion, gasification, and incineration, each with distinct benefits and limitations

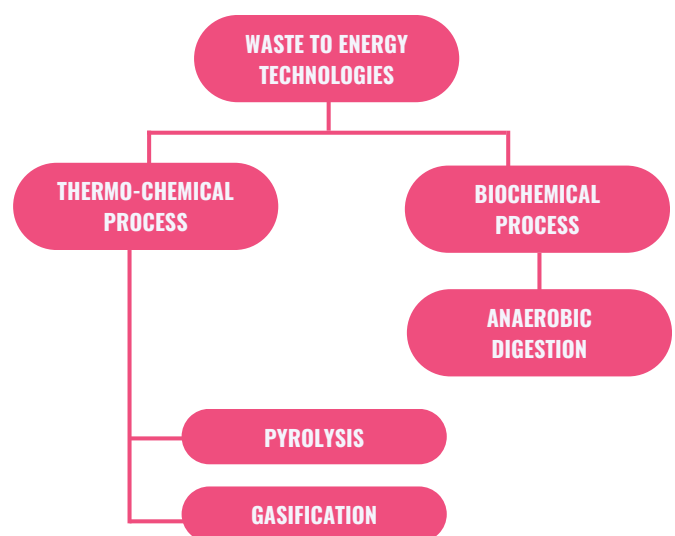


Figure 1. Waste to energy technologies

Biochemical Processes: Anaerobic Digestion Anaerobic digestion is the most widely applied biochemistry process for converting biodegradable waste into the combustible gas called biogas. In anaerobic digestion, the breakdown of organic material by microorganisms without oxygen produces primarily two types of gases, methane and carbon dioxide in terms of composition. Biomass gas can be put into service for electricity, thermal applications, or even use as a substitute for conventional natural gas. Further application can also include the use of residual digestate from this process as nutrient-rich organic fertilizer, supporting agricultural activities and encouraging the circular economy.

Thermochemical Processes: Pyrolysis and Gasification Pyrolysis and gasification are also thermochemical methods that are used in the conversion of human waste into energy. Pyrolysis involves the thermal decomposition of organic matter at high temperatures under an oxygen-free atmosphere, creating syngas that consists of hydrogen, carbon monoxide, and methane; bio-oil; and char. This syngas can be used for the operation of turbines or to generate electricity whereas the product-bio char, improves soil quality as well as capture carbon. Gasification occurs in an oxygen-controlled environment and the resulting syngas is both cleaner and richer in energy than from pyrolysis. This syngas can be used to make liquid fuels or to generate electricity. Both pyrolysis and gasification share benefits with fewer greenhouse emissions produced as compared to landfill waste disposal.

Table 1: Overview of Key Waste-to-Energy Technologies

Technology	Process Description	Key Benefits	Limitations
Anaerobic Digestion	Microbial breakdown of waste in an oxygen-free environment	Generates biogas, nutrient-rich digestate	Requires skilled operation and maintenance
Gasification	Thermal decomposition of waste at high temperatures	Produces syngas, high efficiency	Expensive setup and maintenance
Incineration	Combustion of waste to produce energy	Reduces waste volume, energy recovery	Air pollution concerns, ash disposal issues

Source: Adapted from Das and Sarkar (2022)

3.0 Potential of WTE in Northeast India

3.1. Resource Availability Organic waste is generated in very high volumes primarily because the robust agricultural practices and higher population density in Northeast India generate both opportunities for recovery and challenges in effective management of waste. Bhuyan (2021) pointed out that diverse agricultural activities across the region contribute significantly to large quantities of organic wastes generated, which, in case of proper management, would be a valuable feedstock for waste-to-energy technologies. Despite this, collection and segregation of human waste have remained major challenges, with rural areas facing significant gaps in infrastructure. According to Bora et al. (2022), in the absence of an organized waste collection system

and without adequate awareness of the need to segregate waste properly, waste management efforts are severely impeded. The problem is then further compounded by resource crunch and inappropriate waste management processes, creating environmental and health issues for the public at large.

With an estimated population of around 34.6 million in Assam, 3,500 tons of waste are generated each day. The major portion of this waste is handled through landfilling with insignificant recycling efforts, which proves to be insufficient in controlling the ever-growing waste problem. Meghalaya is home to approximately 3.8 million people, producing about 400 tons of waste daily. Its practices consist mainly of open dumping with some composting; neither of these provides effective minimization of environmental damage in the case of waste collection. Manipur has a population of 2.9 million and produces around 300 tons of waste each day. The treatment available for the waste is few, and it is primarily composed of simple composting programs.

Table 2: Waste Generation Statistics for Select States in Northeast India (2023)

State	Population (millions)	Estimated Daily Waste (tons)	Current Waste Treatment Method
Assam	34.6	3,500	Assam 34.6 3,500 Landfill, minimal recycling
Meghalaya	3.8	400	Open dumping, composting
Manipur	2.9	300	Limited composting

Source: Chakraborty and Das (2019)

In summary, the data points out an urgent need for better waste management strategies in Northeast India, better enhancing the collection and treatment of organic waste, particularly human waste, for energy recovery while minimizing adverse environmental effects.

3.2. Technological Feasibility

Anaerobic digestion is particularly suitable for smaller-scale applications and decentralized settings in rural areas (Kumar et al., 2021). Gasification, while efficient, requires significant investment and technical expertise that may be lacking in the region (Ghosh & Sinha, 2021).

4.0 Challenges in Implementing WTE Projects

4.1. Infrastructure and Funding

The initial capital investment required for WTE plants can be prohibitive for smaller municipalities. Micro-financing models, as discussed by Mishra (2023), could provide a potential pathway to fund such projects.

4.2. Public Perception and Acceptance

Social acceptance is critical for the success of WTE projects. Education and awareness campaigns are needed to improve public attitudes towards waste segregation and the benefits of WTE technologies (Singh et al., 2021).

5.0 Policy and Regulatory Framework

Government policies, such as the Swachh Bharat Mission, have laid a foundation for improving sanitation. However, more targeted incentives and subsidies for WTE projects are needed to encourage private and public investments (Choudhury & Sharma, 2021).

Table 3: Policy Recommendations for Enhancing WTE Projects

Policy Measure	Potential Impact
Subsidies for WTE plants	Reduce initial financial burden for operators
Training programs	Build local expertise for operation and maintenance
Public awareness campaigns	Increase waste segregation at the source

6.0 Successful Case Studies

6.1. Community-Level Biogas Plants

Community-scale biogas plants have shown success in parts of Assam, where anaerobic digestion is used to generate biogas for cooking and lighting (Patel & Singh, 2020). These projects highlight the potential for scaling similar models in other Northeastern states.

6.2. Lessons from International Practices

Countries like Sweden and Germany have integrated WTE into their energy portfolio through supportive policy frameworks and advanced technologies (Johansson et al., 2021).

Adapting these practices to local conditions could enhance the feasibility of WTE in Northeast India. These steps would help manage waste sustainably, reduce landfill use, and contribute to the region's renewable energy goals.

7.0 Future Directions

WTE projects in Northeast India will need multi-pronged technological, social, and policy-driven efforts to expand their coverage. Future projects would be able to include various advancements in microbial fuel cells, which allow for power generation in a decentralized manner at lower emissions (Basu et al., 2023). Though the promise in WTE technologies is bright, there are still concerns in their general application like initial investment cost, limited technological advancement, and also public acceptance. This is important to realize the full potential of WTE in places like Northeast India, combining policy support, public-private partnerships, and community engagement. Continued research and innovation into WTE technology, such as improving the efficiency of biogas production and optimizing waste collection systems, are necessary to provide access and reduce costs for these solutions. In conclusion, human waste-to-energy production is a renewable source of energy for producing energy and handling waste. The Northeast region of India, which contains both rural and urban areas, stands to gain the most benefits from adopting WTE systems. With such technologies in place, the region will slowly be able to meet some of its sustainable development targets, develop environmental stewardship, and increase the living standards of the people inhabiting the region.

8.0 Conclusion

Transformation of Northeast Indian human waste into energy will promise sustainable development and ensure energy security along with environmental protection. It could only be successful by breaking all the challenges in such an area with strategic investment, education, and policymaker support. Transformation of human waste into energy within Northeast India is a highly convincing opportunity for sustainable development, energy security, and environmental protection. The region is perfectly suited for the implementation of Waste-to-Energy technologies, as it hosts both urban and rural communities along with unique topography, and it is ready to adopt waste as a source of renewable energy. In this regard, strategic investment would be very important. The public-private partnership could assume a key role here as it brings in much-needed financial resources, technological know-how, and risk-sharing. However, the government must play an appropriate role in facilitating this.

Tax incentives, subsidies, and grants will be offered to the private sector through the government. Continued financing for R&D will enable the advancement of WTE technologies that are more effective and adaptable to local requirements.

Education and community outreach are also important to assure the successful integration of a WTE project. Public awareness campaigns aimed at emphasizing the environmental and economic benefits of WTE can lead to community participation and promote source segregation. Training programs designed to create a professional workforce to be used in the operation and maintenance of WTE facilities can create more jobs and ensure smoother operations. Bringing WTE concepts into school and university curriculums can foster a new generation nurtured on valuable principles about sustainable waste management and innovative energy sources.

A conducive policy environment is also an enabler of WTE programs. Clear regulations in place for waste management, including segregation of wastes and proper collection, would optimize energy conversion processes. Policies incorporating WTE into renewable energy targets, with grants and low-interest loans, will continue to encourage these technologies' adoption. The efficiency in the approval process for the new projects minimizes the delay and, therefore, makes an environment that is more welcoming to both domestic and foreign investors.

The environmental impacts associated with WTE projects can be beyond relieving pressures on landfills. A well-treatment of the human waste would have substantial methane emission reductions and the efforts toward mitigating global warming. Additionally, more hygienic water and less open defecation reduce health hazards to encourage a healthier environment for life. WTE projects have social implications by stimulating local economies by providing jobs for construction, operation, and maintenance of such projects and giving people a stable and renewable energy source that saves costs and increases living standards.

On the other hand, challenges may include technical, financial, and psychological issues, while the geography of the region might become an obstacle to collecting and transporting the waste, though modular and scalable WTE technology is invested in it and presents flexible solutions. It deals with innovative funding models which include microloans, community investments, and green bonds to handle financial hindrances such as the start-up cost for WTE facilities. Handling public perceptions requires continuous education and effective communication to change cultural assumptions about handling human waste in exchange for health and economic gains from WTE.

It's on the path towards sustainable development and energy resilience that Northeast India is embracing in general, the energy generation from human waste. So strategic investments and educational workforce training can ensure implementation of WTE technology towards environmental sustainability and new sources of economic opportunity that boost public health through combined, concerted efforts for a greener, more sustainable future. In conclusion, turning human waste into energy aligns with Northeast India's path toward sustainable development and energy resilience. By prioritizing strategic investments, fostering education and workforce training, and enacting strong policy support, the region can harness WTE technology to promote environmental sustainability, create economic opportunities, and improve public health. These concerted efforts will empower communities, protect natural resources, and pave the way for a cleaner, more sustainable future.

References

- Banerjee, P., & Ghoshal, A. (2021). Community-based waste management strategies: Lessons from Indian cities. *Environmental Management Review*, 15(3), 45-58.
- Basu, D., et al. (2023). Microbial fuel cells for decentralized power generation: Opportunities in rural India. *Renewable Energy Technologies Journal*, 22(2), 112-127.
- Bhuyan, R. (2021). Sustainable energy solutions in Northeast India: A review. *Journal of Energy and Environment*, 19(4), 321-335. • Bora, T., et al. (2022). Challenges in waste management in hilly regions: The case of Northeast India. *Waste Management and Sustainability*, 18(2), 213-229.
- Chakraborty, R., & Das, M. (2019). Urban waste management in Northeast India: Current practices and future potential. *Journal of Environmental Studies*, 25(2), 122-138.
- Choudhury, N. (2020). Sanitation infrastructure in Northeast India: Challenges and opportunities. *Sustainable Development Journal*, 14(1), 145-158.
- Choudhury, N., & Sharma, P. (2021). Policy approaches to integrated waste-to-energy projects in India. *Energy Policy Perspectives*, 16(3), 234-246.
- Das, B., & Sarkar, P. (2022). Decentralized renewable energy in rural India: The role of biogas. *Journal of Rural Energy Solutions*, 7(1), 34-50.
- Ghosh, R., & Sinha, A. (2021). Feasibility of gasification technology for Northeast Indian states. *Journal of Energy Processes*, 20(3), 156-167.
- Johansson, M., et al. (2021). Waste-to-energy technologies: Case studies from Europe. *Renewable Energy Insights*, 17(2), 201-220. • Mishra, V. (2023). Micro-financing for sustainable energy projects in India. *Financial Strategies for Renewable Energy*, 11(1), 59-74.
- Patel, A., & Singh, D. (2020). Gasification as an alternative energy solution for urban India. *Energy Innovations Journal*, 13(1), 45-63.
- Rajkhowa, A. (2022). Renewable energy initiatives in Northeast India: A policy overview. *Journal of Energy Policy and Implementation*, 18(4), 189-207.

THE NOTION OF TIME: A YEAR IN KHONGDEI

D Helen and Arup Kumar Nath

Abstract

What is time? This question has been of great interest throughout history, and even today, we seek the answer to this basic question. The Khudaime, as they call themselves, live in three villages in the Senapati District of Manipur. They speak the Khongdei Language. This paper discusses the notion of time in a year among the speakers of Khongdei.

Introduction

The Khongdei people reside in three villages, namely Khongdei Khuman, Khongdei Shimpfung, and Khongdei Ngawar, located within the Senapati District of Manipur.

They belong to the Poumai Naga tribe. They also call themselves Khudaime (Khudaime means “people of Khudai”), while the other members of the Poumai tribe call them Dumai. Khudai is considered the ancestor of all the Khongdei speakers (Tohe Pou, 2007).

The three villages are recognized as separate, as seen in Manipur Gazette (Extraordinary), December 24, 2011. There are approximately 6,139 (Six thousand one hundred thirty-nine) speakers, according to the 2011 Census (<https://www.census2011.co.in>). Most Khongdei speakers cannot speak Poula, the language spoken by the Poumai. The Poula and Khongdei are mutually unintelligible.

1.0 Religion and Origin

In the past, the ancestors of the Khongdei followed animism and worshipped the house-spirit and field-spirit because they believed there was a spirit in house and field. Christianity came in 1953, and now most Khongdei speakers are Christian. The members of the community believe that they migrated from Makhel village in Senapati District of Manipur. Several other Naga tribes also believe that they migrated from Makhel (Veikho, 2021, p.7)

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2.0 Occupation

Agriculture is the primary occupation and source of livelihood for the people. Approximately 90% of the community members are cultivators while the rest are engaged in different occupations. Wet terrace paddy cultivation is the most common agricultural practice.

3.0 Literature

Tohe Pou (2007), Mao (2009), Nepuni (2010) have written about the origin of the Poumai including other Naga tribes. Veikho (2019) and Dio (2009) have written about the social and religious practices of the Poumai tribe including their calendar. Punii (2020) has also written how the life of the Poumai people is dictated by the festivals and agricultural activities.

Stephen (2014) has given an account of the customary laws and gender rights. An account of the traditional healing methods in Poumai is given in Jastone & Naga (2023). An encyclopedia Project of the Poumai tribe was planned including numerous scholars of the Poumai tribe (Poumai Naga 2017) for publication in 2020 but this has not yet been published and the details are unclear.

4.0 Research Methodology

This ethno linguistic study is a part of the NEC funded Project titled “Documentation and Revitalization of Nthenyi, Khongdei and zyphe three endangered languages of North East India” under The Centre for Endangered Languages, Tezpur University, Assam.

The primary data was collected through discussion and interviews. The ages of the informants ranged from 45 to 80 years. The secondary data were collected from Grammar of Poumai Naga (Poula), written by Veikho (2011) and the other existing literature shown above.

The following tools were used for data collection: a) Tascam Voice recorder for audio recording and b) Canon Digital SLR Camera, EOS 90D18-55MM IS STM for photographs.

5.0 Seasons

There are two main seasons in Khongdei. Tiinglim-tiing means ‘sky’, and liim means ‘warm/hot’, equivalent to summer. It lasts from March to October. Siikshi, which means ‘cold,’ lasts from November to February, equivalent to winter. Besides these two main seasons, there are dry and rainy seasons. Shikiingii means dry season in winter, and miisa means rainy season in summer

6.0 Khongdei Calendar

The present Khongdei Calendar consists of twelve months, and it’s adapted from the Gregorian calendar. In the past, people used to mark the passage of time based on agricultural activities and other events (Punii, 2020). A month in the Khongdei calendar has thirty days based on the lunar cycle. However, instead of counting directly till 30, the people count the days till the 20th day, after which they count in descending order from 9 to 1, corresponding to the visible size of the moon. The day before the crescent moon is considered Saoh Miiliimla (hidden moon). The village Headman counts days, months, and years based on the lunar cycle and decides the auspicious and inauspicious (phaphiinek) days of the year. Inauspicious (phaphiinek) days are those days in which the villagers are prohibited from working to the extent that women are not even allowed to lose their hair bun. The person who disregards the restricted and inauspicious days for work in the field or even to cross the village gate is paid a penalty like cock, chilly, or salt.

The days of the week are shown in the table below

Khongdei	English	Deictic time
Mapshun khiiridiu	Monday	Ngada (the day before yesterday)
Mapshun khiinidiu	Tuesday	Ngazu (yesterday)
Mapshun kiithimdiu	Wednesday	Thu (today)
Mapshun phiizidiu	Thursday	Thuna (tomorrow)
Mapshun phiingaodiu	Friday	Khenidiu (the day after tomorrow)
Mapshun surokdiu	Saturday	
Maphaodiu	Sunday	

Table 1: Days of the week

Kiishi (1)	Khiini (2)	Kiithim (3)	Phiizi (4)	Phiingao (5)	Surok (6)	Thaoni (7)	shilat (8)	Siikii (9)	Siirao (10)
Sanii kiishi (11)	Sanii khiini (12)	Sanii kiithim (13)	Sanii phiizi (14) (saoh khamdaifull moon)	Sanii phiingao (15) (saoh khamdaifull moon)	Sanii surok (16)	Sanii thaoni (17)	Sanii shilat (18)	Sanii siikii (19)	Miikii (20)
Kiimlami Siikii (9)	Kiimlami Shilat (8)	Kiimlami Thaoni (7)	Kiimlami Surok (6)	Kiimlami Phiingao (5)	Kiimlami Phiizi (4)	Kiimlami Kiithim (3)	Kiimlami Khiini (2)	Kiimlami Kiishi (1)	Saoh Miiliimla (hidden moon)

Table 2: Manner of Counting Days of Khongdei

The normal counting of days starts from one to twenty (1-20th) days of a month and the reverse counting begins from nine to one (9 to 1) as depicted in Table 2 above. The day after kiimlami kiishi is the last day of the month. It is called Saoh Miiliimla (hidden moon). This reverse counting is one of the unique features of the Khongdei (Khudaime) calendar.

The months in the Khudaime calendar and the corresponding months of the Gregorian calendar are shown in Table 3.

Sl.no	Khongdei	Gloss
1	Khulaongai saoh	December
2	Ki saoh	January
3	Chimin saoh	February
4	Mai saoh	March
5	Makam saoh	April
6	Kiifiin saoh	May
7	Kiiziing saoh	June
8	Liikazam saoh	July
9	Risui saoh	August
10	Reiophiidak saoh	September
11	Marafiin saoh	October
12	Fiikut saoh	November

Table 3: Name of the months in Khongdei

6.1 Khulaongai saoh (December)

Khulao in Khongdei means 'society,' and ngai means 'festival,' so here, this month signifies the celebration of festivals in the community. Khulaongai saoh is the first month of the year for the Khongdei community. It corresponds to December in the Gregorian calendar. Some of the important events are performed during this month. They are-

- New houses are built during this month, including Didu (house for those who had done feast of merit rituals) are built in this month, saying that the meat of the feast of merit brings (omen) fortune to the new house.
- Khulaongai is one of the biggest and oldest festivals of the community. The festival begins on the 20th in Khulaongai Saoh (December). An old married woman from each clanKhullak, Khangkhei and Angam performs a ritual called 'liudong' (rice beer is put into a coneshaped cup made of banana leaf and pieces of pork are hung together on the wall). A man from each house fasts for the day. The food is without letting the pot overflow. The people who fasted were the first to eat. Sikein (a bird) is hunted on the 3rd (reverse) of the month and given to the oldest woman of each clan who will bless the children in a ritual called "Nikhamla".

6.2 Ki saoh (January)

Ki saoh is derived from the feast of merit (Kila Saoh-Month of the feast of merit). The celebration begins with the ceremonial beating of buffalo. The men will then drag the stone to be erected. Once they reach home, they will drink rice beer altogether. After drinking, the men kill the buffalo. No one is allowed to create problems during this feast. If any man is found in the company of women, he pays a penalty to a cow, which is then slaughtered and shared by the villagers. For the feast of merit, 2 male buffaloes, 2 oxen, 1 cow, 12 pigs, and some chickens are killed.

6.3 Chimin saoh (February)

The name chimin is derived from Rachi (seeds for planting). The seeds and other crops to be planted in the year are prepared, and the process of sowing seeds and cultivation in general begins this month. This month is thus the most important month of the year for the Khudaime. During this month, all the unmarried women will shave their heads (hair), and all the dogs that mate are killed because it is the off-season mating. Burning or setting fire in the jungle is prohibited, and the felling of trees is also restricted during this month. Only the dry woods/trees may be cut down from the forest before the 10th of the month, and on the 10th , rituals begin, which lasted for 12 days.

People are restricted from working during this time. Everyone had to mandatorily come back to their village if they were outside. The king sows the seed first on the 6 th day of the month (countdown of the month). The public will follow on the next day. On the 5 th morning, the paddy rice will be mixed with the chicken's blood and taken to the field to be scattered upon the prospected patch, and the whole family will fast until the men return. Until the next month, the man and wife are not allowed to cohabit

6.4 Mai saoh (March)

The Khongdei word for fire is mai. This month is called mai saoh because the community burns jungles/jhum to sow seeds (e.g., maize and chilly fields). During this month, millet is planted, and all other fruits and vegetable fields are burnt and prepared for the sowing seeds. There are no social restrictions or festivities this month. The whole community is engaged in agriculture during this period.

6.5 Makam saoh (April)

Makam means 'hide/cover', to denote the process of covering (sowing) the seeds or burying the seeds in the soil. This is the month of sowing different kinds of seeds. The field is cleared and prepared for the sowing of seeds like rice, chilly, maize, fruits and vegetables, etc. The sowing of seeds had to be completed within this month because the community believed that the crops would not bear fruit if they were not sown within this month.

6.6 Kiifiin saoh (May)

This month is named after the Kiifiin ngai (ngai means festival), which is considered one of the most important and biggest festivals in the community. It promotes the culture of communal feasting and a sense of brotherhood in the community. Everyone in the community takes part in celebrating this festival. The celebration starts on the 9th day (reverse counting) of this month and lasts for 5 days. Makam saoh, the members of the community took rest and prepared for the festival. The women fasted on the day before the festival while the men prepared the feast. The headman also fasted with the women. The festival starts with the women eating first. On the last day of the festival, the headman would uproot some seedlings of rice from his patch and will be the first to transplant after the festival. The public were forbidden from planting ahead of the headman.

6.7 Kiiziing saoh (June)

Zing means "lush and green vegetation," a time when the leaves and the greenery are at their peak. The ritual of asking for rain takes place during this month. This is the season of green mountains and fields.

If there is no rain after kiifiingai, then a rain-calling ritual is observed with the leaves of sesame and pumpkin led by the Headman. Two leaves each will be boiled without salt and chilly, and then a mug of rice-beer will be taken, and they will sip the beer and eat the boiled leaves. After this ritual, people would eat only these two types of leaves, and in the course of time, the rain began to fall after this ritual. If the rain does not persist, then the headman and his council would perform another ritual

6.8 Liikazam saoh (July)

The name of this month is derived from the word lii, which means 'field', and Kazam, which means 'spreading hands'. It means spreading hands over the field to seek the protection of lii ruku 'the spirit of field' and its blessings upon the paddy field. There was no fixed date to celebrate the festival of Liikazam ngai. It is celebrated after the completion of work in the paddy field with the slaughter of cock in every household. After the plantation, the owner would stand at one end of the paddy's terrace and bless the fields uttering, "Oh my saplings, you endured the rain and now follow the wind (blessing for the growth), I will go to Pizao (located west of the village crossing the Iril river, considered to be the best site for raw cotton) to get cotton for carrying you and go to Uram (located east of the village) to get bamboo for making granary for keeping you, may the spirit of my house and my field be with you".

6.9 Reisui saoh (August) The name of the month is taken from the literal meaning of sui, which means 'rotten/stale'. On the first day, the ritual is performed outside the house offering the stale food items to your haters and enemy. On the second day of the month, every male of the clan goes for a feast in the jungle by taking a full-grown pig and rice beer to a chosen location outside the village. Angam (mapao niiriim/Rolaomi) clan will go to Fiikii, Dakiini clan will go to Naoshu and Dodaini clan will go to Mariinkhii. This feast is called Lijihao taola in Khongdei. The persons who went for this feast returned on the next day, which was observed as a day of fast for the month, and on this day, they performed the rite at their home by carrying some pieces of thatch and making 3 pillars a sign of hearth. On this, a clay pot is kept with some water and the leftover meat which they brought from the feast is cooked in the evening and sacrificed to the spirits declaring "Let my enemy come and have this decayed food of mine. This process is called reisui-ye".

6.10 Reiophiidak saoh (September)

Riophiidak means a month of offering to the spirit for the protection of their paddy fields and crops from natural calamities and pests. This is also the month of marriage. The ritual of riapadak is conducted on the 20th day of the month signaling the end of the wedding season. This ritual is conducted with the dried beef preserved for this day from Kafiin ngai and split into small pieces called 'haokii thao phirok ye'.

Khudaima marriages took place after discussion among the family members. The boy's family would send an old lady to the girl's family for asking her hand. The girl would present a wrapper to the old lady after the engagement was agreed upon

The boy's family would come to receive her at shingtak (place) in the middle of the village. On reaching the groom's home, the girl would be given his mother's basket, which had been filled with the weaving clothes, and a spade would be placed at the entrance of the house. The groom's parents would serve them rice beer in a banana leaf. After taking a sip each, the old lady would exchange the leaf of the bride and groom and let them drink, signifying marriage. The newlyweds are obliged to fast till the evening. They would be fed a dish of cooked river fish but they are prohibited from eating kheipao (catfish) because that fish ate its offspring. The couple has to sleep separately till the completion of 5 days. They would then eat together at the wife's parents' home, and only after that were they allowed consummating the marriage

6.11 Marafiin saoh (October)

Marafiin is derived from mariing, which means 'jhum cultivation' in Khongdei. The crops cultivated in the jhums are harvested during this month. The owner would bless the fields before the harvest saying "May the yield of kiichitao/Kiichichaoiie (name of a fertile land, located between kachai villages) and also zujiidai (another place name), May it also be like the cutting of elephant skins". It was normally a communal activity with the neighbors helping each other.

6.12 Fiikut saoh (November)

The word fiikut is derived from fii means 'granary' and kut means 'take out'. This month, the harvested paddy was put into the granary and taken out again for sun-drying, cleaning, cooking, and eating. Therefore, it is named Fiikut Saoh. The last day of fiikut saoh is also the day of Haozamlā or cleansing day. The community would wash their utensils thoroughly only in this month because they believed that if the plates were washed frequently, it would bring poverty. On this day, every household would kill a full-grown cock (at least 1 year old). The man would go to the nearby streams with the cock, ginger, spear, and chamrei (a plant), and he would return home; before entering the house, he would ask his wife if all the spirits had come home. The woman would respond, "All had come home before you arrived." After that, the cock would then be slaughtered and eaten only by the family, especially the children and the woman, because the man would be busy drinking rice beer. This whole process is called Haozamlā. This meal marks the end of the year.

Conclusion

We have given a brief account of the months in the year of the Khongdei calendar. We have shown how social events and agriculture activities are used to mark the months of the year. Further research will be undertaken to better understand time in the language.

References

- Dio, H. (2007). Daomai Koh. Purul Atongba, Senapati: Heshoru Dio. Government of India Census, 2011 (<https://www.census2011.co.in>).
- Jastone, K.P & Naga, M (2023). An Insight into Traditional Medicine and its Prospect: A Study on Poumai Naga Tribe in Manipur and Nagaland, India. *Journal of Namibian Studies*, 35(2023):3025-3033.
- Manipur Gazette (Extraordinary), December 24, 2011.
- Mao, X.P. (2009). The origin of tiger, spirit and humankind: A Mao naga myth. *Indian Folklife*, (33), 2009. 2.1.
- Nepuni W. (2010). Socio-Cultural History of Shūpfomei Naga Tribe: A Historical Study of Ememei, Lepaona, Chūluve and Paomata generally known as Mao-Poumai Naga Tribe. Mittal Publications.
- Pou, T (2007). The Poumai Naga Socio-cultural and economic change. PhD thesis. 2.1, 2.2. Punii. P. & Dominic, M. (2020). The Poumai Naga Agricultural Festivals and Rituals vis-a-vis Folklores: Covid-19 Pandemic Application. *Salesian Journal of Humanities and Social Sciences*,
- Stephen, P. (2014). Customary Law and Gender Rights among the Poumai Nagas in Manipur: A Study. Dissertation for Ph. D. University of Delhi: Delhi.
- Veikho, S. (2011). Grammar of Poumai Naga (Poula): A Trans-Himalayan Language of NorthEast India Languages of the Greater Himalayan Region in George L.van Driem. Brill's Tibetan Studies Library, Volume: 25. Languages of the Greater Himalayan Region, Volume: 25. Brill: Boston.

THE LEXICOGRAPHIC CHALLENGES IN COMPILING AN NTHENYI TRILINGUAL DICTIONARY

Chingrimung Lungleng and Arup Kumar Nath

Abstract

Lexicography is the art and science of making a dictionary (Crystal, 2008). Dictionaries come in different number of entries, type of entries and target users. Nthenyi is a relatively undocumented Tibeto-Burman language spoken in Nagaland, India. This paper attempts to shed light on the challenges involved in compiling a trilingual Nthenyi-English-Hindi unidirectional dictionary primarily from the perspective of Cognitive Linguistics

Keywords: Nthenyi, Rengma, Naga, Dictionary, Problems, Cognitive Linguistics

Introduction

Nthenyi (Ntenyi) is a Tibeto-Burman language spoken primarily in Tseminyu District of Nagaland, India. It comes under the Angami-Pochury sub-group of Naga languages (Burling & Post, 2017). It is spoken by members the Rengma tribe and is also known as Northern Rengma Naga.

It has approximately 6,600 speakers comprised of all age groups and level of proficiency (Moseley, 2010). It is considered a threatened language (van Driem, 2007). Nthenyi was recognized by the state Government of Nagaland as the 18th Naga language in 2018 (Belho, 2023).

The language does not have a script of its own. The Latin script is used for writing in Nthenyi. WhatsApp is one of the most popular social platforms where Nthenyi speakers write in their own language.

1.0 Occupation

Agriculture is the primary occupation for the Nthenyi speakers in the villages. Many other speakers reside in the neighboring towns of Kohima and Dimapur, besides other cities across the country, and are engaged in non-agrarian jobs and governmental positions.

2.0 Literature and Literary Organizations

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Mills (1937) has given an account of the Rengma tribe and their society. Marrison (1967) is perhaps the first to use the name Nthenyi for the Northern Rengma language in literature. Kath (2005) and Sebu (2006) have also worked on various aspects of the language and society of the Rengma Nagas. There is also a Rengma Nthenyi Literature Board with headquarters at Chunlikha Village, Tseminyu District. The board, among other functions, offers “services for any translation works into Nthenyi Dialect” (DIPR, Government of Nagaland).

3.0 Types of Dictionaries

Dictionaries can be monolingual, bilingual, and even trilingual. Learners’ dictionaries, electronic dictionaries, and specialized dictionaries are some of the other types of dictionaries. Encyclopedia dictionaries provide a discussion of the entries and the associated meanings along with the entries (Taylor, 2008). The Britannica Encyclopedia is a prominent example. The Nthenyi dictionary is a trilingual dictionary providing translations of Nthenyi words in Hindi and English.

4.0 Current Research and Methodology

This lexicographic enterprise is a part of an ongoing project titled “*Documentation and Revitalization of Nthenyi, Khongdei and Zyphe- Three Endangered Languages of North East India*”

at the Centre for Endangered Languages (CFEL), Tezpur University, Assam. The project is fully funded by the North Eastern Council (NEC). The research has been undertaken after approval by the relevant authority of Tezpur University and more importantly, with consent from the local authorities of the Nthenyi speaking villages.

The data in Nthenyi was collected over a 45-day field trip to three villages- Ehunnu, Kandinu and Sishunu. Kandinu village is accepted by the Nthenyi speakers as their first settlement. As such, most of the data has been collected from this village. The informants ranged from 18 years to 75 years and were from various walks of life- weavers, teachers, students, church workers and farmers. We interacted with multiple informants every day and in various settings such as their place of work, at home and in the fields.

While there exist some written literature in the language including their Bible, due to the nascent stage of research in the language and the scarcity of Nthenyi literature in other languages, it became imperative to focus on the primary data for this research. The data was elicited and collected through a vocabulary list and recorded with a Tascam Voice Recorder. This dictionary has been compiled using Fieldworks Language Explorer 9.0 (FLEX) software. We will also use Lexique Pro for a more elegant presentation of entries and ease of use.

5.0 Theoretical Basis

The primary contents of this dictionary are words, translations and examples of the words in sentences. Words are not isolated units of language but a part of language system as a whole. The process of compiling a dictionary involve two main steps- (1) *The analysis of lexical items or words and the world associated with it, and* (2) *The process of making an entry based on the analysis. A sound theoretical basis is necessary to make consistent entries without overlooking any aspect of the word* (Atkins & Bouillon, 2006). This requires our knowledge of the worlds that the entries stand for. We know the world as structured frames and schemas. A frame is a mental representation of our knowledge and experience of things and events in the world which are also called domains (Langacker, 1987) or as a schema (Kovecses, 2006). These experiences and their meanings are conceptualised as scenes (Fillmore, 2006) which are stored as images leading to the term image schema. For instance, when we talk about a car frame, it conjures images of wheels, doors and seats which are not related by themselves but are related by being components of the same frame. A person who has not seen a car will have different mental images or may not be able to imagine at all if they have not even heard about it

Frames can be language and socio-cultural specific. The act of drinking orange juice is part of the 'luxury frame' in the past Polish societies. On the other hand, in agrarian societies, it was the food of the poor peasants who did not have much variety in the diet. Similarly, the fishing frame in some cultures involves nets and weak plant toxins for small fish while some cultures use hooks and boats or ships and even whale meat. Thus, while some elements are similar, the same frames and consequently the lexicon have different components across cultures. In such an instance, it becomes problematic to give a meaning in another unrelated language. Bartmiski (2009) also concurs with Lakoff (1987) that the socio-cultural conditions influence how we formulate the meanings in building up the lexicon. The challenges relating to travelling, equipment, software, availability and choice of informants may be classed as technical challenges. The other challenges such as data elicitation, and the choice of entry are due to differences in language, culture and the differences in the experience of the world of the Nthenyi speakers from the other two languages.

6.0 Challenges

The main challenges that we faced can be broadly divided into four types

- Challenges related to the Field, Informants and Time
- Technical Challenges
- Linguistic and Cultural Challenges
- Challenges in making entries These problems are discussed in more detail in the following paragraphs.

6.1 Field, Informants and Time

6.1.1 The Field

The challenge started even before going to the field for data collection. The choice of language, location and informants was the first challenge. The first challenge of the fieldwork was the initial search for data, or rather, the hunt for informants. While there are Nthenyi speakers in other parts of the state of Nagaland, we decided to focus on only three clustered villages around Kandinu village, the original village of the Nthenyi speakers. Some of the individuals suggested by the local informants lived far from the villages and it was thus, not feasible to make such large movements. The constant shuffling between the villages also presented a significant physical challenge especially in bad weather.

6.1.2 Informants and Time spent in data collection

Some of the informants were reluctant to initially participate in data collection. They suggested that we meet or talk to specific individuals who they expressed, had a better knowledge of the language and its vocabulary.

Once these informants have provided data, the others were wary to give their own opinion or reproduce the data. This reduces the variety of data. The other speakers may have a different opinion or vocalize the same word differently. It was a challenge to ethically record them as the informants were comfortable in spontaneous conversation but when recorded, they appeared to be trying to give the 'correct' response. Time was always at a premium. Most of the speakers are farmers and constantly engaged in physical work. So, it was difficult to have sustained sessions and the flow of data collection was thus not always steady and constant. A longer period amongst the speakers will facilitate more comprehensive research. Most of the older informants also did not speak English, as expected, and translators had to be used. It is possible that some meaning is lost during the elicitation process itself.

6.2 Technical Challenges This challenge refers to the challenges in making a word list, the software and the researcher involved rather than the informants and their responses.

6.2.1 Vocabulary List (Word list)

We compiled a word list and tried to carefully choose relevant words for data elicitation. We found that many words on the vocabulary list did not exist in the language while the ones that existed were not on the list. The possibility of forced constructions of words thus cannot be ruled out. For instance, we did not come across the Nthenyi equivalent of the English word aunt. In Nthenyi, aya is the word for 'mother's sister' and ani means 'father's sister'. The 'father's brother's wife' is also called aya in the language. The lexical item for 'aunt', a common word in English, therefore, does not appear in the current dictionary. A new form of usage may end up being adopted and elicited since there is a lot of borrowing from other languages. This is consistent with the observations of Goddard (2001) that some words may be lost in following a word list and erroneous ones may also creep in. This is concerning because speakers of Naga languages in Kohima and Dimapur already use aunti for all older women instead of the kinship terms in their respective languages even when they speak in their own languages. This observation has been made based on the short experience of travelling to and from the field. We also found that the newer words such as those used for technology such as 'TV' and telephone have been borrowed directly from English as it doesn't exist in the language. Since culturally these items were not a part of the language, it is obvious that many borrowings would be present in the language.

6.2.2 Recording environment and Data transcription

Since the data was not collected in a sterile environment like a sound proof recording studio, unwanted noises and sounds could not always be avoided. Despite our best efforts, some of the recorded data is not as distinct as it ideally should be.

We did not have the time to use other software like Praat to segment each word for optimum clarity and accuracy. It is also possible that the researcher may make mistakes in transcription and entry based on what the researcher thinks the sound is. Human errors are an intrinsic challenge.

6.2.3 Tools for data entry, compilation and writing in Nthenyi

This dictionary has been compiled using FLEx software. The level of proficiency in its use is also a challenge as erroneous entries may end up being regarded as a part of the languages. The software itself also has shortcomings and inadequacies as it is also evolving to cater to the needs of the users of different languages. The language does not have a script. The Latin script is used to make entries in the language. We discovered that the same letter is used to represent multiple sounds. For example, the 'e' in the name of the language Nthenyi sounds similar to the 'a' in cat, which is transcribed as /æ/ in IPA. The phonetics of the language is also ongoing research. Thus, errors in transcription are possible. The word kene meaning 'to wipe' is transcribed in IPA as /kæne/ as the same vowel has different sounds in the same word. The letters 'c' and 'q' are used for similar sounding words: c- Bhacasha 'jungle clearing month' q- khaiqi 'to indicate' which in spontaneous speech sounds like the kin kakhaqu 'jaw'. This requires the lexicographer to attain a certain level of knowledge of their writing system to differentiate the use of appropriate letters based on their orthography. This has been problematic in such a short time frame. Nthenyi speakers also use diacritics with the Latin or Roman script in writing the language as evidenced by the collective name for all Rengmas written as Terüpnyu.

6.3 Linguistic and Cultural Challenges

The speakers of Hindi, English, and Nthenyi are from different cultures. Language reflects our culture. The vocabulary list is in English, a European language. The three languages are spoken in different realms. The English language cannot fully represent all features of the Nthenyi words. Similarly, we cannot expect our Hindi translation of the Nthenyi word to be conceptually adequate. Thus, there is an underlying problem of equivalence. The data collection has also been conducted in English. Neither the informants and translators nor the researcher speak this language as their mother tongue. This adds a layer of conceptualization and translation of the English words even at the moment of data collection. To obtain a precise response, both the informant and researcher must be familiar with the word and its usage context. Sadza (2011) also faced similar problems while working with Iranian school children since the differences in culture caused struggles in comprehension of the English words among the students

Should the lexicographer give the definition of the word or provide its translation? The choice of lexicon also presents its own challenges, and this is magnified when we have to deal with three instead of just two entirely different languages. The meaning of a word, as also seen in Vyvyan (2006), is context-dependent. The same lexical item can have more than one function. For example, the Nthenyi word akhuisa can mean both 'bracelet' as well as 'to sing'; akhu can mean either 'knee' or 'plate'; and cha means 'to carve', 'to shave', and 'to weed'. Thus, both the participants in dictionary making as well as the users need to understand the context that the word is used in. Tono (2001) also found that the level of proficiency in that language as well as global knowledge had a significant influence on the efficient use of a dictionary.

6.4 Challenges of making entries

6.4.1 Equivalence and Semantic integrity of entries

One of the biggest cognitive challenges in every language is preserving the semantic integrity of the word and the world that it represents. Following the example of the word bachelor in Lakoff (1987) to illustrate how different cultures conceptualize the same word, let us consider the entry drinking. In Nthenyi, it is a component of the 'festival' frame and evokes images of rest, merry making and a generally pleasant time. Locally brewed fermented rice beer is consumed. Alcohol is seen as a vice and is frowned upon in some Hindi-speaking communities where the majorities are Hindus (Newar, 2017). Western literature and movies have shaped our perception of drinking and beverages like wine, beer, and whisky reflect different frames.

Due to these differences, the addition of metaphors and idioms in the present dictionary also will not provide their comprehensive meaning. Some words are language and culture specific. The words used in Nthenyi rituals and festivals are neither found in English nor Hindi and vice versa. It is a challenge to find the counterpart in both Hindi and English owing to the linguistic shortcomings of the lexicographer. Some of the functions and information attached to the word are thus lost if we consider only major similarities or differences.

The kikkaikiti 'priest' in the Nthenyi society was also the 'king' and led the rituals and festivals. This is different from an ordained priest in England and a pujari in the Hindu society. The katimiis now called the 'headman' in English but the Nthenyi word for the headman is still katimi. The saloti 'general' was a brave man of repute but he was in no way the equivalent of the leader of armies as is seen in the history and current usage in the other two societies. It is also possible that saloti is derived from 'salute' as every soldier in the British army salutes the general.

The inherent problem of 'word equivalence' persists despite faithful efforts to accurately translate the Nthenyi words into English and Hindi. Since seemingly equivalent words can and do have different connotations, it was difficult to consistently make equivalent entries. Others, who have studied African languages like Zgusta (1971), Al-Kasimi (1983), and Swanepoel (1989), have also noted this lack of equivalency.

3.4.3 Word Classes

The verbs in Nthenyi are attached to the infinite unlike English verbs that occur independently. The infinitive markers ka-, a-, ke-, te are used:

ka- kahe 'to beat someone',
a- achuki 'to speak',
ke- keshuya 'to share',
-te rute 'to come'

Thus, it becomes challenging to make the entry of just the verb as a grammatical category. The informant usually produces the inflected form of the verbs. A verb is used without the infinitive in a sentence as in

(1). (1) Na hiwe ru
'You come here.'

Some linguists contend that adjectives do not constitute a distinct word class while others argue that they are a class of words on their own. Since the research on the language is ongoing, it has been a challenge to class all such words as adjectives as they may be stative verbs. This is seen in Nafsan (Thieberger, 2006) and Hausa (Abdoulaye, 2006). A detailed explanation for each such entry however, is not feasible in the current dictionary.

Conclusion

Some of the challenges in the compilation of the Nthenyi-English-Hindi trilingual dictionary have been discussed in this paper. A dictionary is a record of the speakers' world and thus, its compilation is a complicated task. In the words of Adamska-Salaciak (2006), "... bilingual dictionaries are impossible in theory but indispensable and irreplaceable in practice." The compilation of this trilingual dictionary has been a fulfilling experience. In many communities, the language loses significantly with each death of an older member of that speech community. We hope that this dictionary will contribute towards the prevention of further loss and facilitate ease of learning of the Nthenyi language amongst interested users.

References

- Abdoulaye, M. L. (2006). Existential and possessive predication in Hausa. *Linguistics*, 44(6): 1121–1164. Berlin& Boston: De Gruyter Mouton.
- Adamska-Salaciak, A. (2006). *Meaning and the Bilingual Dictionary. The Case of English and Polish*. Frankfurt am Main: Peter Lang.
- Al-Kasimi, A.M. (1983). *Linguistics and Bilingual Dictionaries*. Leyden:E.J. Brill.
- Atkins, B. T. S., & Bouillon, P. (2006). Relevance in dictionary making: Sense indicators in the Bilingual entry. In L. Bowker (Ed.), *Lexicography, terminology, and translation: Text-based studies in honour of Ingrid Meyer* (pp. 25–43). Ottawa: University of Ottawa Press.
- Bartminski, J. (2009). Aspects of Cognitive Ethnolinguistics in Jorg Zinken (ed.). *Advances in Cognitive Linguistics*. London:Equinox.
- Belho, K. (2023). Naga Tikhir Language: An Outlook on the Challenges to Develop Tikhir Language. In *Society for Endangered and Lesser-Known Languages*. Vol.8, Issue I.
- Christopher Moseley. (2010). *Atlas of the World's Languages in Danger*. UNESCO Publishing.
- Crystal, D. (2008). *A Dictionary of Linguistics and Phonetics* (6th edition). UK:Blackwell.
- Csabi, Szilvia & Kövecses, Zoltán. (2014). *Lexicography and Cognitive Linguistics*. *Revista Espanola de Linguistica Aplicada*. 27.
- Fillmore, C. J. (1977). The Case for Case reopened. In P. Cole (Ed.), *Syntax and semantics*. Vol. 8: *Grammatical Relations* (pp. 59–81). New York: Academic Press. Fillmore, C. (2006). Chapter 10 *Frame semantics*. In D. Geeraerts (Ed.), *Cognitive Linguistics: Basic Readings* (pp. 373–400). Berlin&New York: MoutonDe Gruyter.
- Goddard, C. (2001). *Lexico-Semantic Universals*. In *Linguistic Typology*. Vol. 5 (pp. 1- 65).Berlin&New York:Mouton de Gruyter.
- Kath, K. (2005). *Traditional Religious System of the Rengma Nagas*. Delhi: Shipra Publication.
- Lakoff, G. (1987). *Women, fire, and dangerous things: What categories reveal about the mind*. Chicago: The University of Chicago Press.
- Langacker, R. W. (1987). *Foundations of Cognitive Grammar: Theoretical Prerequisites*. Vol. 1.Stanford: Stanford University Press.
- Marrison, Geoffrey E. (1967). *The Classification of the Naga languages of North East India*. Doctoral dissertation, University of London.
- Mills, J.P. (1937). *The Rengma Nagas*. London: MacMillan and Co.
- Ostermann, Carolin (2015). *Cognitive lexicography. A New Approach to Lexicography Making Use of Cognitive Semantics*.Berlin & Boston: de Gruyter.
- Karlgren (ed.) *Statistical Methods in Linguistics*. Scriptor: Stockholm.
- Post, Mark W. & Robbins Burling.(2017). *The Tibeto-Burman Languages of Northeast India*. In Randy J. La Polla & Graham Thurgood (eds.) *The Sino-Tibetan Languages*, 213- 242. 2nd edition. London:Routledge.
- Swanepoel, P.H. (1989). *Only Study Guide for LEKPER-Q*.Pretoria: University of South Africa.
- Sebü, G. (2006). *Nyu Song Kethü Tehjuh.(From traditional marriage to Christian marriage)*. Diphu: Printwell Printers.
- Tono, Yukio. (2001). *Research on Dictionary Use in the Context of Foreign Language Learning*. 10.1515/9783110915013.
- Thieberger, Nicholas. (2006). *AGrammar of South Efate: An Oceanic language of Vanuatu*. Honolulu: University of Hawai'i Press.
- Vyvyan, E. (2006). *Lexical Concepts, Cognitive Models and Meaning Construction*. *Cognitive Linguistics*.Vol. 17, no. 4, pp. 491-534. Mouton De Gruyter.
- van Driem, George. (2007). *The Diversity of the Tibeto-Burman Language Family and the Linguistic Ancestry of Chinese*. *Bulletin of Chinese Linguistics*. 1. 211-270.
- Taylor, Bron. (2008). *Encyclopedia of Religion and Nature*. New York & London:Continuum.
- Zgusta, L. (1971). *Manual of Lexicography*. Mouton: The Hague&Paris.
- Zoltan Kövecses. (2006): *Language, Mind and Culture: APractical Introduction*, Oxford: Oxford University Press. Department of Information and Public Relations, Government of Nagaland.

<https://ipr.nagaland.gov.in/rengma-nthenyi-literature-board-offers-services-translation-works>

PROMOTION OF SPECIAL INTEREST TOURISM (SIT) AS A STRATEGIC OPTION FOR RESPONSIBLE TOURISM DEVELOPMENT IN THE NORTH EASTERN STATES OF INDIA

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Abstract

The North-eastern states of India, with their unique cultural diversity, beautiful landscapes, and rich history, have immense potential for responsible tourism development. A well-known strategic approach to promoting responsible and sustainable tourism in the region is special interest tourism or SIT. SIT provides a targeted and sustainable approach with an extensive number of features that help preserve the unique biodiversity and culture of the area while also strengthening local communities. This paper examines the idea of responsible development for the states of North-East India. It demonstrates how it could promote the socioeconomic well-being of locals while protecting the area's natural and cultural heritage. A SWOT (C) analysis of SIT investigates internal and external factors that may impact the strategy's success. With proper management and the development of SITs, the region has great potential to be a unique and sustainable tourism destination, to the benefit of both locals and tourists interested in experiencing the unique beauty and special tourism it can offer.

Keywords: North-Eastern States of India, Special Interest Tourism, Responsible Tourism, Sustainable Tourism, SWOT(C) Analysis, Strategic Tourism Approach, Responsible Travel

Introduction

A specialized area of the travel and tourism sector known as Special Interest Tourism (SIT) caters to people or groups with narrowly focused passions, interests, or hobbies. SIT is intended to offer distinctive and customized experiences that align with the personal interests and preferences of the tourists, as opposed to mass tourism, which frequently concentrates on well-known locations and generic travel experiences. Special Interest Tourism (SIT) is described as tourism undertaken for a distinct and specialized purpose

suggesting that the tourist has a particular reason based on their interest to visit a different location (Brotherton & Himmetoğlu, 1997). SIT encourages tourists to engage in behaviors that, at best, reinforce their sense of self and, at worst, maybe “justified” as socially responsible.

This helps distinguish “SIT” from mass tourism (Morgan & Pritchard, 1999). This kind of tourism caters to a broad spectrum of specialized interests, including adventure, wildlife, eco-tourism, gastronomy, and cultural and historical hobbies (Wriener & Firth, 2021). Customization is the main feature of special interest tourism. It is the offering of customized leisure and recreational activities motivated by the particular interests that individuals and groups have expressed (Derrett, 2001). It gives visitors the chance to discover and partake in activities that are closely associated with their interests or passions. SIT strives to engage people in immersive experiences, regardless of their specific interests. SIT has been attracting more attention in recent years as tourists look for more authentic and significant experiences. It frequently involves smaller, more personal group sizes and enables tourists to meet others who have similar interests. Because it promotes ethical and ecological travel, this kind of tourism can also benefit the environment and nearby communities. From a local to a global level, the overall system is indicative of political, economic, ecological, technological, and socio-cultural concerns (Trauer, 2006).

North Eastern States of India

The North Eastern States of India, also known as the “Seven Sisters,” make up a special and distinctive region. In addition to the “Seven Sisters,” Sikkim is known to be the brother of the North-Eastern States of India.

India's North Eastern Region (NER), which includes the eight states of Arunachal Pradesh, Assam, Manipur, Meghalaya, Mizoram, Nagaland, Tripura, and Sikkim, is the nation's most eastern region.

China to the north, Myanmar to the east, Bangladesh to the southwest, Nepal to the west, and Bhutan to the northwest all have international borders with the region. The NER spans 262,184 square kilometers in total. (Roy et al., 2015; Choudhury et al., 2021). The North-Eastern states are acknowledged for their various indigenous groups, lively customs, and rich cultural tapestry. An interesting area for cultural and anthropological study, the region has a diverse population with many different ethnic groups and languages (Baruah, 1999). Additionally, it is the region for numerous festivals that showcase the diverse and colorful traditions of its communities. The North-Eastern states have historically been characterized by complicated questions of identity, insurgency, and autonomy movements in addition to their cultural assets (Bhaumik, 1996). Due to these influences, several regional parties and tribal councils have emerged, reshaping the political landscape of the area. In light of its strategic location, the North-Eastern states have become a key focal point in India's foreign policy, particularly as the country seeks to deepen its engagements with the Indo-Pacific region (Malik, 2014). Understanding the North Eastern States of India is pivotal not only for academic interests but also for comprehending the broader dynamics of the nation's multi-ethnic and multi-cultural tapestry, its political landscape, economic prospects, and its position on the global stage.

LITERATURE REVIEW

The origin of Special Interest Tourism could be traced back to the late 1980s and early 1990s, as a solution to mass tourism, which often resulted in uniform experiences and adverse socioenvironmental effects (Jin & Sparks, 2017). Brotherton & Himmetolu (1997) defined special interest tourism (SIT) as travel that has a clear, defined purpose and implies that the motivation for travellers to travel to a different location is a particular interest. This contrasts with general interest tourism (GIT), in which the primary driving force behind tourism is the destination's attributes, which together contribute to a significant portion of the tourism product. Ma et al. (2020) claim that special interest tourism (SIT) has always been viewed as the opposite of mass tourism, with Special Interest travellers expecting more specialized experiences based on their interests. There have been claims, meanwhile, that SIT and general tourism, or mass tourism, frequently overlap and are not inherently mutually exclusive. SIT involves various forms of tourism such as eco-tourism, cultural tourism, adventure tourism, and culinary tourism, among others (Sebayang & Subakti, 2023). Such diversification indicates a shift of consumers' focus from the traditional travel oriented towards travel as an experience. Through this experience, tourists are instead involved emotionally rather than passively consuming products (Sousa, 2018).

The rise in the demand for authentic experiences has resulted in the development of SIT as a viable alternative to former tourism paradigms (Sibi, 2017).

There could be many reasons as to why one would participate in SIT. Research has shown that special interest tourists frequently will want to pursue very specific themes or activities as per their preferences (Wen & Wu, 2020). Mckercher & Chan (2005) argued that the term "Special Interest Tourist" should be substituted with a more accurate but less glamorous term, "tourists who visit attractions or activities that are evocative of a specialist interest." This more accurately sets the pursuit of the specialized interest at the center of the decision of travel and destination choice. The significance of the role of cultures in creating the portrayal of a destination is essential in the context of attracting Special Interest Tourists and therefore it has been recommended that destination marketing organizations take advantage of such cultural phenomena (Lee & Bai., 2016). Cultural tourism is an important element in the general SIT which focuses on the preservation and enhancement of local traditions and cultures. According to Chen (2024), incorporating local cultural practices and knowledge in a tourist's itinerary not only enriches the experience, instills a sense of pride in the community, and helps preserve its culture. The concept of Sustainable Development requires environmental conservation while being able to provide economic benefits to the surrounding communities. The encouragement of eco-tourism and cultural tourism in allowing the implementation of SIT will not only promote environmental conservation but will also help in safeguarding the cultural heritage which is advantageous to the environment and local people (Baro et al., 2022).

Additionally, SIT has the potential to act as a catalyst for economic growth in the less developed regions. According to Grant (2000), there are social exclusion problems and limited economic activities in most rural areas. Trauer (2006) examines the various aspects of special interest tourism (SIT) in the early 21st century. According to the author, SIT provides people the opportunity to partake in activities that strengthen their sense of self and could be viewed as socially responsible. The author also contends that SIT satisfies tourists' desire for happiness and personal fulfilment while providing a qualitative difference from mass tourism. According to Kruja (2011), the majority of Special Interest Tourists are middle-aged or older, as well as teens and younger travellers (from family or educational groups) who have an adventurous, curious, and sharing mindset. The author claims that several areas, including natural resources, organic food, cultural and religious legacy, and mountain scenery, might help small regions develop a special interest in tourism

The importance of technology to enhance SIT cannot be overstated. The emergence of digital platforms and social networks has revolutionized the experience of how tourists experience and participate in niche tourism. For instance, Yoon et al., (2020) stated that online marketing strategies can greatly increase the market presence of SIT offerings, enabling the small operators to reach a global audience. Such democratization of information assists travellers in making appropriate decisions regarding their tourism activities hence, encouraging an ecofriendlier sustainable form of travel that promotes veneration of the communities visited. Sousa (2018) claims that innovation is crucial for SIT. There are many new challenges and substantial changes facing the tourism industry, such as the rise of new tourism forms and the effects of information and communication technologies on the development, production, and consumption of tourism-related products. The author also emphasizes how consumer behaviour has changed in the tourism industry, focusing more on sophisticated, specialized, and segmented consumers looking for a unique experience. The author argues that innovation plays an important role in the travel and tourism sectors, especially in SIT, where innovative elements can stimulate entrepreneurial activities. In general, innovation is believed to be a major factor in the SIT industry's growth and competitiveness.

According to Wen & Wu (2020), catering to tourists with special interests can present several issues for destinations. These include the need to ensure safety and ethical considerations, to provide specialized services and experiences that cater to the particular requirements and interests of these visitors, and to strike a balance between the pursuit of profit and the protection of the environment and community at large. Additionally, while accommodating tourists with special interests from various locations, destinations may need to take cultural norms and differences into account

RESEARCH METHODOLOGY

This study is based on secondary data sources to highlight the potential and challenges of promoting Special Interest Tourism (SIT) in the North-eastern states of India. The research methodology involves a comprehensive literature review, reports, and statistical data concerning various trends in tourism, as well as socio-cultural aspects of the area.

Relevance and credibility were the primary guiding principles in selecting data sources. Government and industry reports were selected for their authoritative insights into policies and strategic directions. Peer-reviewed academic journals and books that focused on SIT and tourism in the North Eastern States of the country were also chosen. Such diverse sources ensure the provision of a well-rounded background as well as making fair observations concerning the issue.

The data for this research was collected from various secondary sources, including government reports, annual reports, and tourism development strategies that were put out by both the Ministry of Tourism Government of India and the State Tourism Departments for North-Eastern States. Furthermore, academic journals which discuss SIT (Special Interest Tourism), and regional tourism patterns among others were studied along with books and paper presentations made across various platforms. For instance, industry document publications produced by travel associations such as the World Travel and Tourism Council (WTTC) were also used to give insights and complement data obtained from other credible sources such as the United Nations World Trade Organisation (UNWTO).

SPECIAL INTEREST TOURISM IN THE NORTH EASTERN STATES

The North-Eastern States of India, with their unique cultural diversity, immaculate landscapes, and rich legacy, provide great promises for responsible tourism development. A well-known strategic option for promoting ethical and ecological tourism in the region is special interest tourism (SIT). Concerning the states of North-Eastern India, this section examines the idea of SIT and demonstrates how it could enhance the socioeconomic status of the local community while protecting the region's natural and cultural heritage.

SIT and responsible tourism

Special Interest Tourism comes in a variety of niche tourism categories, including ecotourism, cultural tourism, wildlife tourism, and heritage tourism, in line with the principles of responsible tourism. SIT places a strong emphasis on civic engagement, environmental protection, and the observance of cultural traditions in the north-eastern states. The North-Eastern States of India are renowned for their untouched landscapes, incredible biodiversity, and cultural diversity. A customized strategy to highlight the region's distinctive offerings is provided by Special Interest Tourism, which encompasses a variety of specialty categories like cultural tourism, ecotourism, adventure tourism, and wildlife tourism. Numerous studies emphasize how SIT has the potential to promote economic empowerment, cultural interchange, and environmental preservation. SIT has the potential to maintain a harmonic balance between tourism development and the preservation of the environment and culture by catering to the many interests of visitors while encouraging responsible practices.

Empowering local communities

SIT’s potential to strengthen local communities is one of its key advantages. An example is a home stay, which allows local families to directly engage in the tourism sector. In addition to generating revenue, accommodating guests in one’s house promotes cultural interchange and builds respect and understanding between each other. SIT transforms into a potent tool for inclusive and sustainable development by assisting regional activities. Through programs like home stays, SIT promotes community involvement. With this strategy, local communities can benefit economically, exchange cultures, and feel a sense of pride and ownership.

Infrastructure Development and Connectivity

Investments in infrastructure and better connectivity must go hand in hand with the development and promotion of SIT in the North-Eastern states of India. To attract a wider range of tourists, it is crucial to develop transportation facilities, accommodations, and other critical infrastructure. According to various research studies, these investments are essential to ensuring that tourists can access and take advantage of the distinctive experiences provided by SIT. In addition to being crucial for travellers’ comfort, the improved connection also makes isolated and pristine destinations more accessible, reducing the environmental effect of tourism. Infrastructure improvements and better connectivity are crucial if SIT is to reach its full potential. To draw in a wider variety of visitors, it is essential to upgrade the infrastructure of highways, airports, and accommodation facilities.

SWOT(C) ANALYSIS

With an emphasis on ethical and sustainable tourism practices, a SWOT(C) analysis of Special Interest Tourism as a strategic option for responsible tourism development in the North-Eastern States of India identifies internal and external elements that may impact the strategy’s success.

Strengths

India’s North-Eastern states are well known for its extraordinary cultural diversity. There are many different indigenous tribes and ethnic groups, and they all have their customs, works of art, music, and festivals. This diversity of cultures can work to the advantage of special interest tourism. The North East is a desirable location for tourists who are seeking to experience other cultures personally. It is a full and immersive experience where they can interact with the local community, partake in traditional festivals, and engage in authentic cultural activities. The North East is also a popular destination for eco-tourists and wildlife enthusiasts due to its astounding diversity of flora and fauna.

Several endangered species find refuge in the area’s verdant forests, unspoiled rivers, and untouched natural ecosystems. By providing environmentally friendly and wildlife-focused activities that support sustainability and conservation initiatives, such as bird watching, jungle safaris, and trekking, responsible tourism can take advantage of this richness. The North-Eastern States could benefit from financial benefits from special interest tourism. Local communities may generate revenue through home stays, guided tours, the sale of handmade crafts, and cultural events by creating specialty tourism products.

This can help with the region’s poverty alleviation and offer much-needed livelihood opportunities—two important components of responsible tourism. Sustainable practices are naturally encouraged by the emphasis on responsible tourism. This involves reducing the detrimental effects of tourism on the environment and culture. In the North East, responsible tourism can emphasize preserving cultural heritage, conserving fragile ecosystems, and promoting energy- and waste-efficient practices. This strategy guarantees the preservation of the area’s distinctive offerings for upcoming generations while also being in line with global sustainability goals. When compared to the other parts of the country, the uniqueness and exclusivity of the North East are still intact since it has not been overtaken by mass tourism.

The desire for exploration and innovation is a great asset. The North East will appeal to tourists looking for unique, off-the-beaten-path experiences, and they are frequently more receptive to local traditions and environments. Tourists with particular interests are drawn to destinations through special interest tourism. Experiences can be tailored in the North East for these specialized markets.

Increased engagement and satisfaction from tourists as a result of this focused strategy may encourage future visits and positive word-of-mouth referrals. Additionally, the North-Eastern states are renowned for their hospitality and safety in many places. For tourists, hospitable and accommodating locals can make a big difference in their overall experience. Responsible tourism must prioritize safety, and the region’s reputation for safety can work to its advantage.

Special interest tourism presents a strategic option for responsible tourism growth in the North Eastern States of India, owing to their unique strengths. This region is an excellent destination for tourists looking for unique and immersive travel experiences because of its vast cultural diversity, biodiversity, economic opportunities, emphasis on sustainability, authenticity, appeal to niche markets, safety, and warm hospitality.

Weaknesses

There are serious infrastructure limitations in the North-Eastern States of India, such as insufficient accommodation, transportation, and medical services. The expansion of special interest tourism may be impeded by these limitations. For example, it may be difficult for tourists to visit remote destinations due to poor road conditions and limited air connectivity. The time and effort needed to travel within the region are increased, in addition to the inconvenience caused by a lack of transportation facilities. It may be challenging to find high-quality accommodation, particularly in remote or underdeveloped destinations. Insufficient accommodation choices may discourage tourists seeking comfortable and environmentally conscious travel since sustainable accommodation is often addressed in responsible tourism. Tourists may experience hardship if there are no sufficient options for accommodation readily available. The healthcare system in certain regions might not be equipped to deal with medical crises or problems that tourists might come across. One of the most important components of responsible tourism is guaranteeing the health and safety of tourists. Particularly in rural areas, the absence of suitable medical services might be a serious risk. Also, both tourists and local communities might not fully comprehend the concepts of responsible tourism. The effective implementation of sustainable tourism practices may be limited by a lack of understanding regarding these practices. Without education and awareness initiatives, this can result in unsustainable behaviours like littering and overuse of natural resources.

There are certain limitations in the North-Eastern states where entry requires a specific permit. Some states require an Inner Line Permit (ILP) to enter, while other regions require a Protected Area Permit (PAP) to access a specific area. For tourists, this might mean taking an additional step, which would be inconvenient. Also, permits from government authorities may be needed for several kinds of special interest tourism activities, including wildlife observation, trekking in protected regions, and adventure sports. Because of the long processing timeframes, opaque procedures, and lack of transparency, these permits can sometimes be challenging to obtain. For tourists and tour operators in particular, obtaining permissions can be very challenging, which causes major inconvenience. Also, the language barrier could pose challenges for tourists as well as locals in some remote areas. Encouraging cultural exchanges, guaranteeing safety, and offering high-quality services all depend on effective communication. Language barriers can make it difficult for tourists to communicate effectively, which makes it challenging for visitors to communicate with the local community and also comply with regulatory requirements.

Due to extreme weather conditions, there may be limited tourist seasons in several places in the North-Eastern states. For instance, prolonged monsoon rains may limit the length of the tourism season by compromising accessibility and safety. Seasonal constraints may have an impact on local communities' employment prospects and the sustainability of tourism-related businesses.

When it comes to national and international tourism promotion, the North-Eastern states are frequently overlooked. Potential tourists may not be aware of the area due to ineffective marketing and promotion, which would reduce the region's tourism potential. A multifaceted strategy, including community involvement, private sector initiatives, and government intervention, is required to address these weaknesses. To overcome these obstacles and build a thriving and sustainable responsible tourism industry in the North Eastern States of India, infrastructure development, education and training in responsible tourism practices, and improvements in healthcare and accommodation services are crucial.

Opportunities

The government can create specific legal frameworks that support the growth of responsible tourism, facilitating the adoption of sustainable practices by businesses and communities. The development of infrastructure, community training, and efficient marketing in the region can be facilitated by financial support and resources made available by government initiatives and incentives to encourage responsible tourism. Partnering with NGOs and international organizations can help initiatives promote responsible tourism by providing resources, financing, and technical support. These collaborators can support the use of best practices in conservation, community involvement, and sustainability. Since the North-East States share borders with other countries, neighbouring countries like Bhutan, Nepal, and Myanmar provide opportunities for cross-border tourism, generating new markets and opportunities for business. Many ethnic groups and indigenous tribes reside in the North-Eastern states. By providing home stays, cultural immersion, and opportunities to engage with the locals, responsible tourism can strengthen these communities. This gives tourists authentic experiences while also bringing in revenue for these communities.

The responsible tourism paradigm can be improved by including local communities in benefit-sharing and decision-making procedures. Initiatives for community-driven tourism can guarantee that the local population directly benefits economically from tourism. Supporting cross-cultural interactions between tourists and the community may assist in the promotion and preservation of indigenous practices.

Opportunities for local talents, entertainers, and cultural educators could develop as a result. Cultural diversity, unspoiled natural landscapes, and rich biodiversity are just a few of the North-Eastern States' Unique Selling Points (USP) that can be effectively marketed. Marketing strategies that are tailored to emphasize these unique features can attract responsible tourists. Digital marketing and social media platforms may assist in reaching a wider audience and generating buzz about the region's special interest offerings. The natural landscapes of the region create opportunities for agro-tourism. Both traditional agriculture methods and organic farming practices are available to tourists. In contrast to other well-known destinations for tourists in India, a large number of destinations in the North-Eastern states are still largely unexplored. Tourists looking for remote, untouched places will find these pristine landscapes to be a treasure trove, which will encourage the growth of sustainable tourism infrastructure in these areas. There are states within the North-Eastern region famous for tea plantations and farming, which could attract even more tourists should there be more promotion and attention paid to the same. North-Eastern food is very delightful and diverse, featuring items like momo, thukpa, and recipes made with bamboo shoots. Tourists can experience these distinctive flavours and cooking techniques through culinary tourism. Owing to its rugged landscape, the region is ideal for adventure sports, including paragliding in Sikkim, river rafting in Arunachal Pradesh, and trekking in the Eastern Himalayas. Adventure tourism has a huge potential to attract adventure seekers, resulting in a boost to the local economy. Policymakers and the government ought to encourage adventure tourism in the North-Eastern states since it has the potential to boost not just the local economy but also the tourism sector as a whole. The region has the potential to become a global example of responsible and sustainable tourism. The North-Eastern states might attract responsible tourists seeking sustainable and ethical travel options by emphasizing eco-friendly measures, encouraging community-based tourism, and conserving its pristine nature.

The North-Eastern States of India possess significant opportunities for capitalizing on the potential of special interest tourism (SIT) while simultaneously advocating for responsible and sustainable tourism. Stakeholders can create a tourism industry that benefits tourists and local communities while protecting the nature and heritage of the region by embracing its cultural diversity, scenic beauty, and distinctive services.

Threats (Challenges)

While it is important to focus on and promote the marginalized region of the North-Eastern States, improper and unsystematic planning could have adverse consequences

The authentic nature of regional cultures and environments can be compromised by a spike in tourists and an excessive focus on commercialization. If not properly controlled, excessive tourism development can result in the commodification of tourists and a loss of the distinctive identity that initially draws tourists with special interests.

Tourism actions, such as pollution, deforestation, and littering, may harm the region's natural beauty and threaten its fragile ecosystems. It is possible that initiatives to promote tourism both domestically and abroad do not give the North-Eastern States as much attention. This lack of promotion may cause potential tourists to be less conscious of responsible tourism, which could impede its development. A tourist's experience may be adversely impacted by limited transportation alternatives and bad road conditions. Responsible tourists may be discouraged by inadequate lodging options and health hazards associated with substandard healthcare facilities. Additionally, the severe weather conditions in the North-Eastern states may limit the region's tourist seasons.

Extreme cold, intense monsoon rainfall and other weather-related issues might shorten the length of the tourist season, which has an impact on the sustainability of the tourism industry. Natural calamities, including earthquakes, landslides, floods, and cyclones, are common in this region. Events of this nature have the potential to negatively impact tourism, damage infrastructure, and compromise tourists' safety. Strategies for risk management and disaster preparedness should be part of any responsible tourism planning. Also, there have previously been conflicts and warfare in some areas of the North-Eastern states.

These issues could pose security risks, compromising tourists' safety. Potential tourists may be discouraged by safety concerns, especially if they are interested in responsible tourism. Additionally, there may be differences in income between the local community members who benefit from tourism and those who do not. Inadequate management of the uneven distribution of tourism-related revenue can cause social unrest and adverse effects on the local community.

Ensuring the equitable distribution of tourism's economic benefits is crucial. To counter these concerns, the North-Eastern states should prioritize responsible tourism practices, including community involvement, sustainable development, cultural preservation, and disaster preparedness. For these threats to be reduced and responsible tourism to be encouraged in the area, cooperation between the public and commercial sectors is essential.

Conclusion

The cooperation of numerous stakeholders is crucial for the success of SIT in the northeastern states of India. To enable the successful implementation of SIT activities, government agencies, local communities, and the tourism sector must collaborate. To create and sell SIT experiences, conserve the area's pristine landscapes, and uphold their distinctive cultural heritage, a unified effort must be a priority. In conclusion, the north-eastern states of India provide an excellent opportunity for responsible tourism growth due to their natural beauty, rich culture, and diverse traditions. With its wide range of segments, special interest tourism offers a sustainable and targeted strategy that may strengthen local communities and protect the area's distinctive nature and culture. While there are obstacles and barriers to overcome, such as the requirement for responsible behaviour and infrastructure development, these can be done with cooperation and a dedication to responsible tourism guiding principles. The North-East Mountains realize their full potential as a distinctive and sustainable tourism destination with careful management and the development of SIT, to the advantage of both locals and tourists looking to experience their pristine beauty. The North-Eastern States are ready to welcome responsible tourists and offer life-changing experiences that contribute to the well-being of local communities while conserving the region's distinctive identity and environment because of its natural beauty, cultural diversity, and rich heritage.

References

- Baro, D., Bawri, A., Deka, J., & Borthakur, S. K. (2022). Extended distribution and assessment of conservation status of *Impatiens exilis* Hook. (Balsaminaceae) an endemic species of Eastern Himalaya. *Plant Science Today*, 9(3), 693-697. <https://doi.org/10.14719/pst.1517>
- Baruah, S. (1999). *India against itself: Assam and the politics of nationality*. University of Pennsylvania Press.
- Bhaumik, S. (1996). *Insurgent Crossfire: North-East India*. Lancer Publishers.
- Brotherton, B. O. B., & Himmetoğlu, B. (1997). Beyond destinations - special interest tourism. *Anatolia: An International Journal of Tourism and Hospitality Research* 8(3), 11-30. <http://dx.doi.org/10.1080/13032917.1997.9687118>
- Chen, C. C., Chook, J. W., Nguyen, L. B., & Lee, C. H. (2024). Integrating Locals' Importance-Performance Perception of Community Resilience into Sustainable Indigenous Tourism Management. *Sustainability*, 16(12), 50- 70. <https://doi.org/10.3390/su16125070>
- Choudhury, H., Kopacsi, Z. L., Saxena, G., & Mishra, N. (2021). The ethical dimension in political market orientation: a framework for evaluating the impact of India's Look East Policy on regional income convergence. *Journal of Business Ethics*, 168, 353-372. <https://doi.org/10.1007/s10551-019-04169-w>
- Denzon, G. (2023, October 4). What Is Special Interest Tourism? www.ticketinghub.com. Retrieved October 22, 2023, from <https://en-us.ticketinghub.com/blog/what-isspecial-interest-tourism>
- Derrett, R. (2001). Special interest tourism: Starting with the individual. In *Special interest tourism: Context and cases*. John Wiley & Sons.
- Grant, M. (2000). PACE: Guiding rural tourism development in a fragile area. *Tourism in peripheral areas*, 39-57. <https://doi.org/10.21832/9781873150740-004>
- Jin, X. C., & Sparks, B. (2017). Barriers to offering special interest tour products to the Chinese outbound group market. *Tourism management*, 59, 205-215. <https://doi.org/10.1016/j.tourman.2016.08.007>
- Lee, S., & Bai, B. (2016). Influence of popular culture on special interest tourists' destination image. *Tourism Management*, 52, 161-169. <https://doi.org/10.1016/j.tourman.2015.06.019>
- Malik, M. (2011). *China and India: Great power rivals*. Lynne Rienner Publishers.
- Ma, S. D., Kirilenko, A. P., & Stepchenkova, S. (2020). Special interest tourism is not so special after all: Big data evidence from the 2017 Great American Solar Eclipse. *Tourism Management*, 77, 104021. <https://doi.org/10.1016/j.tourman.2019.104021>
- Mckercher, B., & Chan, A. (2005). How special is special interest tourism?. *Journal of travel research*, 44(1), 21-31. <https://doi.org/10.1177/0047287505276588>
- Morgan, N., & Pritchard, A. (1998). *Tourism promotion and power: Creating images, creating identities*. John Wiley & Sons Ltd.
- Roy, A., Das, S. K., Tripathi, A. K., Singh, N. U., & Barman, H. K. (2015). Biodiversity in North East India and their conservation. *Progressive Agriculture*, 15(2), 182-189. <http://dx.doi.org/10.5958/0976-4615.2015.00005.8>
- Sebayang, V. A., & Surbakti, A. (2023, June). Seoul Hallyu Trip by Traveloka: Special Interest Tourism Packages for MZ Generation. In *Proceedings of the 1st International Hospitality, Travel and Event Conference (IHTREC 2023)* (Vol. 244, p. 16). Springer Nature. http://dx.doi.org/10.2991/978-94-6463-170-8_3
- Sibi, P. S. (2017). The experiential facets of special interest tourism offerings of Wayanad, Kerala. *Atna Journal of Tourism Studies*, 12(1), 35-48. <https://doi.org/10.12727/ajts.17.3>

References

- Sousa, B. (2018). The role of innovation in special interest tourism: a theoretical approach. *Millenium*, (05), 83-92. <http://dx.doi.org/10.29352/mill0205.08.00162>
- Trauer, B. (2006). Conceptualizing special interest tourism—frameworks for analysis. *Tourism management*, 27(2), 183-200. <https://doi.org/10.1016/j.tourman.2004.10.004>
- Wen, J., & Wu, M. Y. (2020). How special is special interest tourism—and how special are special interest tourists? A perspective article in a Chinese context. *Current Issues in Tourism*, 23(16), 1968-1972. <https://doi.org/10.1080/13683500.2020.1750575>
- Weiler, B., & Firth, T. (2021). Special interest travel: reflections, rejections and reassertions. *Consumer tribes in tourism: contemporary perspectives on specialinterest tourism*, 11-25. https://doi.org/10.1007/978-981-15-7150-3_2
- Yoon, B., Chung, Y., & Jun, K. (2020). Restaurant industry practices to promote healthy sustainable eating: A content analysis of restaurant websites using the value chain approach. *Sustainability*, 12(17), 7127. <https://doi.org/10.3390/su12177127>

WETLAND CONSERVATION IN MANIPUR

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Introduction

Wetlands are areas of land that are covered partially or fully with water, either permanently or seasonally, and are home to a variety of flora and fauna. They include swamps, marshes, and bogs. The water found in wetlands can either be saltwater, freshwater or brackish. According to the Wetland Conservation Act of 1991, a wetland is defined by the following criteria: (a) it has mostly hydric soils, (b) it must generally be inundated or saturated above or below the surface, and (c) support vegetation adapted to wet soil conditions. They are highly complex ecosystems due to interactions of diverse elements relating to land and water elements.

Wetlands are important for providing a diverse range of ecosystem services, such as water purification, flood control, and carbon sequestration. Unfortunately, wetlands are being lost at an alarming rate due to human activities, such as urbanization, agricultural expansion, industrialization and pollution. A significant change in wetland hydrology, diversity, and services as a result of climate change presents a major challenge for wetland conservation. Wetland loss is one of the main concerns of environmental degradation and a hot topic of discussion in major international conventions. According to Wetlands International South Asia (WISA), during the last four decades, 33% of India's natural wetlands have been lost due to anthropological factors like urbanization, farming development, and contamination. A study by Nick C. Davidson found that wetland conversion and loss are occurring at an alarming rate, and the long-term conversion and loss of wetlands exceeds 50% and as much as 87% since the beginning of the 18th century. In the 20th century wetland loss exceeds almost four times faster. According to ENVIS Hub Manipur, Manipur had about 500 lakes in the valley in the early 20th century, but only 55 remained by the 1950s

Importance of Wetlands:

Wetlands sustain an incredibly diverse ecosystem; they are favorable habitat to diverse floristic and faunal diversity including migratory birds coming from colder regions.

They are home to a variety of plants, fish, shellfish, many aquatic organisms, animals, including amphibians, reptiles, birds, and mammals. Wetlands act as natural filters, removing pollutants from the water and soil, often referred to as "Nature's Kidneys" and they also help to regulate water levels and reduce flooding.

They also prevent soil erosion, and they buffer water bodies from potentially damaging land use activities such as agriculture. Wetlands can also remove and store greenhouse gases from the earth's atmosphere, slowing the onset of global warming. Wetlands are Wealthlands in the sense that they recycle nutrients, purify water, recharge ground water, provide drinking water, fish, fodder, fuel, handicrafts, medicinal plants, wildlife habitat, control runoff rates in urban areas, and act as recreation centre in the region.

Wetlands, however, are ecologically sensitive and adaptive systems. Any alterations could affect their biophysical, socioeconomic, and climatic conditions. The degradation of wetlands releases a certain amount of greenhouse gases in the atmosphere, causing the rise in temperature, precipitation, and humidity.

Wetlands of Manipur:

Wetlands hold cultural and economic significance to the people on Manipur. Many mythologies are woven around lakes and wetlands. Wetlands in Manipur are rapidly disappearing due to the need for more land to accommodate the growing population and other modernisation activities. There is also the fear of extinction of wetland dependent species which are important for sustenance of the state's ecology and biodiversity.

The state of Manipur is predominantly characterized by hilly terrains that encompass approximately 92% of its geographical area. Wetlands, on the other hand, are primarily concentrated within the central valley of the state covering nearly 2.5 per cent of the total geographical area of Manipur, approximately 398 square kilometres, constituting 1.78% of the overall land area.

The state has around 168 wetlands characterized by marshy and swampy terrain. These areas are typically situated in low-lying regions, either adjacent to or in the vicinity of large lakes. Loktak Lake is the most important freshwater lake in the state and the North-East region of India. Other important lakes include Ikop, Waithou, Ngakrapat, and Loushipat, but they are threatened by artificial eutrophication and encroachment for cultivation and fish farming. Kharungphat, Khoidumpat, Pumlen, Lokoipat, Sanapat, and Poiroupat are highly degraded lakes in the state. Till March 2022, there are seven wetlands, excluding the Loktak Lake, listed to be notified as recommended by Manipur State Wetlands Authority (MSWA). But Loktak Lake being a Ramsar site is also under management for conservation.

Wetlands of Manipur recommended by MSWA:

1. Pumlen-Khoidum Pat Wetland (Kakching District)
2. Ikop-Kharung Pat Wetland (Thoubal District and Kakching District)
3. Waithou-Phumnom Pat Wetland (Thoubal District and Imphal East District)
4. Yaral Pat Wetland (Imphal East)
5. Utra Pat Wetland (Bishnupur District)
6. Jaimeng Wetland (Kangpokpi District)
7. Kachouphung-Achou Maki Wetland (Kamjong District)



Figure 3: Waithou-Phumnom Pat Wetland



Figure 4: Ikop-Kharung Pat Wetland



Figure 1: Yaral Pat Wetland



Figure 5: Pumlen-Khoidum Pat Wetland



Figure 2: Utra Pat Wetland



Figure 6: Jaimeng Wetland/Bolen Pat Wetland



Figure 7: Kachouphung /Achau Maki Wetland

Image Source: Wetland Division, Directorate of Environment & Climate Change, Manipur Some of the important wetlands which are not yet recommended by MSWA but listed for further recommendation process are as follows:

Sl.no	Name of Wetlands	Name of nearest village(s)/ surrounding village(s) Location(s)	District
1	Loktak Pat	Phubala/ Ningthoukhong/ Nonggangkhong Khullen	Bishnupur
2	Yaral Pat	Yaralpat under Revenue Village No. 38- Top Dushara Pvt. Patta Land	Imphal East
3	Heingang Pat	Heingang, under the Revenue Village No. 16- Heingang Pvt. Land	Imphal East
4	Lamphel Pat	5- Tangkham	Imphal East
5	Sana Pat	Leimapokpam	Bishnupur
6	Loukoi Pat	Nungsai/ Joipur Khunou/ Bishnupur	Bishnupur
7	Ikop Pat	Thoubal	Thoubal
8	Karam Pat	Hangamthabi/ Lilong Telenkhul	Thoubal
9	Usoipokpi Pat	Hangamthabi/ Chaobokkakai	Thoubal
10	Khoidum Lamjao	Surveyed	Kakching
11	Kharung Pat	Surveyed	Kakching
12	Loushi Pat	Surveyed	Kakching
13	Teinem	Teinem	Ukhrul
14	Zeiladjang	Zeiladjang	Tamenglong
15	Sadim Wetland	Lizai Sadim Village	Senapati

Threats to Wetlands of Manipur:

Pollutants from industrial activities, climate change and agricultural activities including process of Jhum cultivation affects the wetlands leading to a decrease in water quality, water level and heavy sedimentation. This reduces the wetlands' ability to act as a buffer against floods and other natural disasters. It affects the aqua life (birds, fish, plants, etc.) of the Wetlands destroying their life cycle leading to their extinction. The quality of freshwater lakes are deteriorating because of the hyper-eutrophic status of the wetlands which results from increased pisciculture activities being carried out by the people living in the vicinity of the wetlands along with rapid encroachments. The hyper-eutrophication of the Loktak Lake is of great concern and needs urgent conservative measures. Presence of detergents, soaps, and other phosphates and nitrates, which are brought by the rivers into Loktak Lake, "eutrophication" occurs. The process of eutrophication leads to algal blooms which results in competing with other aquatic plants for light and nutrients. And the water begin to stink as these blooms release toxic chemicals, which then kill aquatic plants, animals, and birds, and deplete oxygen.

Conservation Initiatives:

Notification of Wetlands is a very important step for the conservation and management of Wetlands. It is necessary to overcome encroachment issue and helps in defining wetland boundaries so that no possible disturbances come during the process of conservation. It is important to accurately register wetlands in the land revenue records to ensure that they are protected from encroachment and illegal claim of ownership etc. Some of the legal initiatives and policy measures taken up by the government are mentioned below.

Ramsar Convention and Loktak Lake:

The Ramsar Convention is an international treaty signed to protect wetlands and promote sustainable use. Loktak Lake is considered the lifeline of Manipur's people due to its cultural and socio- economic importance. The Loktak Lake received its first international recognition in 1990 in the "Convention on Wetlands of International Importance" drafted at the Iranian City of Ramsar (1971). As a Ramsar Site, the Loktak Lake is recognized internationally for its uniqueness, and its management and conservation are placed in the limelight by this convention. This lake has also been listed under "Montreaux Record", a record of Ramsar site.

Loktak Development Authority (LDA):

Loktak Development Authority is the nodal state government organization mandated for the conservation and sustainable management of Loktak Lake and its surrounding areas. Loktak Development Authority monitors the vast expanse of floodplain Wetlands of Manipur River known as Loktak Wetland Complex.

. The Authority was constituted in 1987 under the aegis of the Department of Irrigation and Flood Control, Government of Manipur. The objective of the Authority is to check the deteriorating condition of Loktak Lake and to bring about improvement of the lake ecosystem along with development in the field of fisheries, agriculture and tourism. The activities of LDA are also being proposed to be extended to other association wetland like Pumlun-Khoidum Pat and Ikop-Kharung Pat wetlands.



Figure 8: Phumshang(hut on large biomass)at Loktak Lake. Photo taken by Author

The Loktak Protection Act, 2006:

The Loktak Protection Act, 2006 is an important legislation enacted by the Government of Manipur to protect the ecology of the Loktak Lake and its surrounding areas. This Act provides framework for administration, control, protection, improvement, conservation and development of Figure 8: Phumshang(hut on large biomass)at Loktak Lake. Photo taken by Author. the natural environment of the Loktak Lake.

This Act restricts certain activities in the lake, such as the free-ranging fishery as traditionally practised by the local people. Section 20 of the Act prohibits the building of huts on the Phumdis (large bio-mass) called Phumshang, cultivation of Athaphums (planted bio-mass), and Athaphum fishing in the lake. The Loktak Development Authority now functions under the aegis of the Department of Forest and Environment, Government of Manipur.

The Manipur Conservation of Paddy land and Wetland Act, 2014:

The Manipur Conservation of Paddy Land and Wetland Act, 2014 is a state-level legislation enacted by the Government of Manipur which aims to conserve the paddy land and wetland to restrict the conversion or reclamation thereof in order to promote growth in the agricultural sector in the State of Manipur

This Act is important for protecting and conserving the natural resources of the state, promoting sustainable agriculture to ensure food security.

Manipur State Wetland Authority (MSWA):

The MSWA is a statutory body established by the Government of Manipur under the Wetlands Conservation and Management Rules, 2017. MSWA is responsible for the management of identifying and notifying wetlands within the state, monitoring their ecological health, and taking measures for their restoration and conservation.

The MSWA is a powerful Authority comprised of twenty two members with Hon^{ble} Minister (Forest & Environment) as Chairperson, Chief Secretary as Vice-chairperson, Director (Environment & Climate Change) as Member Secretary along with Administrative Secretaries as Member exofficio;

Heads of relevant Departments and 5 subject experts as Members. The conservation wetlands like Yaral Pat Wetland, Utra Pat Wetland, Waithou-Phumnom Pat wetland and other hill wetlands like Jaimeng Wetland are under the jurisdiction of MSWA.

Media Initiatives:

Media campaigns can be used to educate people on the environmental issues like habitat loss and degradation, pollution, climate change and engage people to support wetland conservation efforts. Media campaign could use a variety of media channels, such as social media, print and digital, electronic media and other educational materials.

Governmental media organizations of Manipur like All India Radio Imphal and Doordarshan Kendra Imphal under the wing of Ministry of Broadcast and Information broadcast timely wetland related programmes like documentaries on wetland;

discussion and interaction programmes for wetland conservation actions. Private media houses of Manipur like Impact TV, TOM TV and ISTV etc also broadcast discussion and talk shows related to wetland management and conservation. Radio Loktak, a community radio station at Mayang Imphal have been broadcasting weekly wetland conservation programmes called “Eikhoigi Pat” meaning “Our Wetland” since its inception in 2017.

The programme is used as an effective strategy of storytelling to engage and inspire people for wetland conservation. The programme involves sharing personal stories of individuals or communities whose lives have been positively impacted by wetlands, as well as stories of successful wetland conservation efforts.

Conclusion

Wetlands are important ecosystems that provide a range of ecological services, including water storage, flood control, carbon sequestration, and habitat for a wide range of flora and fauna. Wetlands of Manipur are of significant ecological, cultural and socio-economic importance.

These wetlands have been subjected to ecological threats and are on the verge of extinction. Wetlands are our natural capital assets and we all need to safeguard these valuable ecosystems for the future generations and for the sake of all living beings harboured in the wetlands. Wetland conservation is a crucial task that requires the collective efforts of all the stakeholders.

It is very important that the stakeholders at various levels come together and participate in conserving and managing the resources. Wetland restoration and protection can only be achieved through a range of measures, such as regulation of wetland use, sustainable development of wetland use and the implementation of restoration and management plans giving public education and outreach programs.

The Government of Manipur has been actively working on the integrated management plans for the restoration and conservation of wetlands of the state. The media organisations of Manipur are also actively participating in disseminating the importance of these valuable ecological systems and educating people on the grave concern of wetland degradation. A concerted effort from the Government organisations, Non-Government organisations, Media organisations and the people of the state can only save the fate of these vulnerable ecosystems

References

- DAVIDSON, NICK. 2014. How much wetland has the world lost? Long-term and recent trends in global wetland area. *Marine and Freshwater Research*. 65. 936-941. 10.1071/MF14173.
- DR. LAISHRAM BIJEN MEITEI, LEICHOMBAM KAVITA DEVI, DR. MAYANGLAMBAM MUNI SINGH. 2022. Integrated Management Plan of Wetlands in Manipur. *A New Approach to Science and Environment*. 90-118.
- Guidelines for implementing Wetlands (Conservation and Management) Rules, 2017
- H. MANORANJAN SHARMA. 2014. Wetland flora of Manipur: i. Monocotyledonous plants. *Proceedings of Two Day National Seminar on "Recent Advances in Science"*.
- Loktak Development Authority Annual Administrative Report 2011-13
- THIYAM TAMPHASANA DEVI, BAKIMCHANDRA OINAM, NGANGBAM ROMEJI SINGH AND MAISNAM BIPINCHANDRA SINGH. 2017. Status of wetlands valleyed in a hilly region of North East India - A review. *International Journal of Water Resources and Environmental Engineering*. Vol. 9(2), pp. 33-42

A BASIC MORPHOLOGICAL DESCRIPTION OF ZYPHE

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Abstract

Zyphe belongs to Maraic branch of the Kuki-Ching group of Tibeto-Burman Language family spoken in Mizoram and in Western part of Chin, Myanmar. The language follows SOV word order.

This paper gives a basic description of morphological structure of Zyphe language which highlights the complex morphological structure of the language along with binary tense system, where only the future tense is marked. Also, the language has prodrop features, frequently omitting pronouns and uses classifiers with nouns to indicate shape, size and quantity.

Key words: *Agglutinative, pro-dropped, agreement, clitic.*

Introduction

The Zyphe (or Zophei) is a Chin ethnic minority inhabiting in Mizoram state of India, southern Thantlang township in western Chin state, Myanmar. The Zyphe language belongs to Maraic branch of the Kuki-Ching group of Tibeto-Burman Language Family (Vanbik. 2009).

There are three major dialects of Zyphe language viz. Upper Zyphe, Lower Zyphe A and Lower Zyphe B. The Zophei identify ethnically as part of the Laimi tribe, a linguistically diverse group which contains speakers of many Chin languages including the Maraic languages Mara, Senthang, Lutuv (or Lautu), and Zotung (Lotven 2021).

According to Ethnologue, there were approximately 17,000 Zophei speakers living in Burma/Myanmar and India with 20,000 speakers worldwide. In Mizoram, India, the Zyphe population is estimated to be about 4000.

Genetic Classification

The first comprehensive subgrouping of the Kuki-Chin languages was undertaken by a Catholic priest, Fr. André Bareigts, who identified three main subgroups: Southern, Central, and Northern. Bareigts' classification was not based on linguistic criteria.

Within the Central Chin languages, he further divided them into Central Northern Central Chin and Southern Central Chin. The Southern Central Chin subgroup constitutes a separate branch called Maraic, a term coined by James Matisoff (VanBik, 2009). In Bareigts' classification of the Kuki-Chin family, Zyphe, or Zophei, is categorized under the South Central group within the Maraic branch.

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Kenneth VanBik, in his thesis on Proto-Kuki-Chin, also identifies the Maraic branch as a distinct subgroup within the Kuki-Chin family. According to VanBik, the Maraic group is subdivided into three smaller groups: Mara, Zotung, and Senthang. Zyphe or Zophei is included in the Mara group.

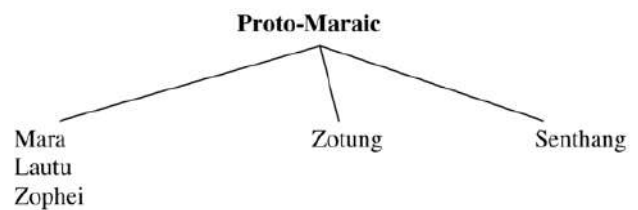
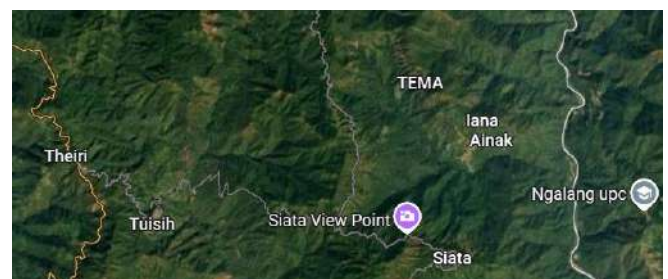


Figure1: Kenneth VanBik's Subgroup in the Schema for the Maraic group

Methodology

The method employed in this study is descriptive in nature. The data described and analyzed here is the outcome of a fieldwork that was undertaken to Siata and Iana, two remote villages of Saiha district, Mizoram.



Map 1: Siata and Iana (Ainak) village,

The primary data collected for the study through questionnaire (pertaining to this research) and interview mood

Word Order

The basic word order of the Zyphe language is SOV. The subject of a sentence always holds the initial position. The object comes in the middle, followed by a verb. Sentences no (1) & (2) exhibit the basic word order of Zyphe.

- 1)
Miata tah baibo a thaw.
Mita-tah baibo a -t^ha
3SG-ERG sparrow 3SG-kill
Mita killed a sparrow.

The Zyphe is a pro-dropped language. It is a common phenomenon in most of the Kuki-Chin languages where the speaker tends to drop the pronoun, Instead a clitic is concatenated with a verb which refers to the pronoun of the subject. In Zyphe, without exception, the pronoun is dropped the sentences and the omitted pronoun is marked by an agreement marker that sits before a verb. Examples are given below.

- 2)
(Kama) batui ka e
(Kama) batui ka-e.
1SG food 1SG-eat.
I eat rice.

Morphological Typology

Agglutination is a morphological process by which complex words are formed through the linear addition of affixes, each representing a single grammatical category, such as tense, case, number, or person. In agglutinating languages, morphemes are added sequentially and retain their individual identity, resulting in a high degree of morphological transparency.

- 3)
ka e tha
ka-e-t^ha
1SG-eat-PFV
I have eaten.

- 4)
A vawng beh
a-v^hɔŋ-beh
3SG-come-NEG
He didn't come

In the sentence number (3) (4), each morpheme attached together has denoted a particular meaning. The agreement marker ka which denotes 1st person sigular is attached with the verb e which means eat and followed by the perfective aspect t^ha. Again in the sentence (4) the 3rd person singular agreement marker a sits prefixially with the verb v^hɔŋ means to come followed by the negative marker beh. Each morpheme carries its own distinct meaning.

Noun Morphology

Noun

Proper Noun	Zykhai (name of a Zyphe boy) Laikhai (name of a Zyphe boy)
Common Noun	Co (Cow) Cake Tiger
Count Noun	Khong 'drum' Ing 'house'
Mass Noun	Tui 'Water' Sang 'Rice'

Table 1: Basic Nouns

Compound Noun: Compound nouns are linguistic constructions in which two or more lexemes are combined to create a new nominal unit. Some examples of Zyphe compound nouns are given below

- 5) v^hɔŋ
v^hɔŋ+sɔ
= Pork. Pig+meat
- 6) ŋkɔŋ
ŋkɔŋ+sɔ
= Fish Fish+(meat/flesh)
- 7) meit^hɪŋ
mei + t^hɪŋ
= Firewood. Fire+tree or wood
- 8) luk^hu
lu+khu
= Hat Head+cover
- 9) ɪŋk^hɔ
ɪŋ+kɔ
= Door house+hole

Noun Adjective

The adjective phrase consists of an adjective which is head of the phrase and a noun in Zyphe. The intensifier is also used optionally with the adjective just to emphasize the attribute of the adjective.

10)
Canu hmuisthaw paw
tsanu η uist^h-pɔ
Girl beautiful

11)
Ing lai paw
ij lai-pɔ
House big Big house.

Pronoun

In Zyphe like in other languages, pronouns are used as a substitute of noun which functions as a subject, topic and attributes. It occurs in two forms, free form and clitic. Generally, noun of free form sits alone in its exclusive sense. On the other hand, the clitic forms are used as agreement marker before a verb.

Free Form

Person	Singular	Plural
1 st	kama	ka-niη
2 nd	nama	na-niη
3 rd	ama	a-niη

Table 2: Pronominal

Agreement

Person	Singular	Plural
1 st	ka	ka:
2 nd	na	na:
3 rd	a	a:

Table 3: Pronominal clitics

Demonstrative Pronoun:

In Zyphe, the markers *he* and *k^he* denote proximity and distance of head noun. These two markers invariably follow the head noun. The demonstrative marker /*ma*/ always precedes the head noun in both the cases

12)
ma tsabu he
 DEM book PROX.
This book

13)
ma tsabu k^he
 DEM book DIST.
That book

Possessive Pronoun:

The possession is not overtly marked in Zyphe. The head noun is juxtaposed with the personal pronoun or a noun to show possession of it. The head noun always follows the personal pronoun or other nouns.

14)
ka car
ka-kar
 1SG-car
My car.

15)
Na cabu
na-tsabu
 2SG-book
Your book.

Interrogative Pronoun:

Interrogative pronouns are basically used to ask questions. It doesn't change according to the gender (human, non-human) but can be followed by the interrogatives, quantitative and locatives.

Who	Aho
Whose	Aho-tei
What	ze
Where	Ze-letah
Which	Ze-ha-paw
When	Atoniη
Why	Ze-navaita
How	Ze-hrata

Table 4: Interrogative pronouns

Reflexive Pronoun

The morpheme teitah sits at the back of a pronoun to denote reflexive pronoun in Zyphe language.

16)
 Zenavaita nama tetiat na mocchia.
 Zenavaita nama teitah na-mots^hia
 Why 2SG slef 2SG-blame
 Why did you blame on yourself?

Gender

Gender is divided into two broad categories, +animate and -animate. Again +animate is further divided into two, human and non-human category. In human category, masculine is indicated by suffix pɔ and feminine is by nu.

Masculine	Feminine
pɔ	nu

Table 5: Gender marker

Again, in non- human category, masculine is marked by tunpɔ and feminine is by tunnu. The morpheme /tun/ is used to refer a non -human.

Masculine	Feminine
tunpɔ	Tunu

Table 6: Gender marker for non-human

Masculine	Gloss	Feminine	Gloss
Sake-tungpaw	Tiger	Sake-tunu	Tigress
tso-tungpaw	Bull	tso-tunu	Cow

Table 7: Gender for non-human

Number

The Zyphe language follows a binary number system that is singular and plural. Singular is mostly unmarked. Plurality is denoted by attaching the bound morpheme sahb to the singular form of the noun. This morpheme is affixed to signify more than one item.

Singular	Gloss	Plural	Gloss
meru	Thief	meru-sahb	Thieves
pavɔ	Thief	pavɔ-sahb	birds

Table 8: Number

Verb Morphology

Tense

Future Tense:

The Zyphe has future vs non-future binary tense system. The future tense is marked by a suffix a. Unlike future tense, past tense and present tense are unmarked by any overt morphemes

17)
 Batui ka e a
 batui ka-e-a
 Rice 1SG-eat-FUT.
 I will eat rice.

18)
 Hlaw na sa a
 hlɔ na-sa-a
 Song 2SG-sing-FUT.
 You will sing a song.

Non Future Tense:

In Zyphe, present and past tense are not overtly marked by any affix. Instead, adverbial expressions are frequently used to convey references to past and present time.

19) Cosaw a e
 tso-sɔ a-e
 cow-meat 3SG-eat.
 He/she eats beef.

20) Pavaw a tho
 pavɔ a-tʰɔ
 bird 2SG-kill
 He/she kills the bird.

21) Cake ka hmu.
 tsake ka:- ɱ u
 Tiger 1.PL-see
 We saw a tiger.

Aspect

Aspect is the temporal view of an event or state expressed by a verb. It is divided into two categories, perfective and imperfective. In Zyphe, the perfective is marked by the suffix t^ha.

22)
 Vaw a lui tha.
 vɔ a-lui-t^ha
 pig 3SG-feed-PFV.
 He has fed the pig.

The non-perfective aspect is represented by two, progressive and habitual. The progressive aspect is indicated by the suffix /leimei/ and habitual is by /tei/.

23)
 Batui ka e leimei
 batui ka-e-leimei
 Rice 1SG-eat-PROG.
 I am eating rice.

24)
 Ningtingtah sang lui lang na sei tei
 niŋtiŋtah saŋ lui laŋ na-sei-tei
 Everyday rice field to 2SG-go-HAB.
 You go to the paddy field every day.

Mood

Mood refers to the grammatical and semantic feature of verbs that expresses the attitude or perspective of the speaker towards the action or state. It is part of the broader study of mood and modality, which deals with how language expresses possibility, necessity, obligation, permission, and other nuances of meaning related to the speaker's stance.

25)
 Arai a tua khy
 arai a-tua-k^hy
 work 3SG-do-can
 He can do the work.

Negation

Negation is a process that contradicts the notion of a part or a complete sentence. The morpheme /bei/ and /be/ follows any verb root to form negation in Zyphe language. The marker /be/ generally occurs in the word final position.

26)
 Khaikhai tah zysawng e be.
 k^haik^hai-tah zysɔŋ e-be.
 Khiakhia-ERG snail eat-NEG.
 Khiakhia doesn't eat snail.

27)
 Aca hmu bei neh
 atsa-ŋ u-bei-neh
 2SG-meet-NEG-1SG
 I won't meet you

Causative Verbs

Causatives are those verbs which cause someone to perform a task or undergo an experience. In Zyphe, causative verb construction is formed with the help of causative morpheme /sa/

Verb	Gloss	Causative Suffix	Gloss
ɲui	laugh	sa	Cause (someone) to laugh
e	eat	sa	Cause someone to eat
zei	beat	sa	Cause (someone) to beat

Table 9: Causative verbs

28)
John tah Bill ngawsaw a hmei sa
john-ta Bill ɲɔ-sɔ a-e-sa
John-ERG Bill fish 3SG-eat-CAUS.
John made bill eat fish curry.

29)
Sawma tah Ram nyhe a zei sa.
sawma-tah Ram nyhe a-zei-sa
Sawma-ERG Ram child 3SG-beat-CAUS
Sawma made Ram beat the child

Derived Noun

Derived nouns are constructed from a verb to noun. Derived nouns are formed through nominalization, where a suffix is added to a verb root. This process creates nouns that denote the agent or "doer" of the action implied by the verb

Verb root	Gloss	Nominalized form	Gloss
pat <u>su</u>	Teach	pat <u>su-tu</u>	Teacher
tsat <u>lai</u>	Play	tsat <u>lai-tu</u>	Player
rei	Read	rei-tu	Reader
sa	Sing	sa-tu	Singer
kua	Send	kua-tu	sender
diɲ	Drink	diɲ-tu	Drinker

Table 10: Derived Noun

30)
 Tingcy pasutu a cang.
 tiŋtsi patsu-tu a-tsaŋ
 Tingcy teach-NMZ 3SG-BE
 Tingcy is a teacher.

31)
 Langtu tetnah a lang leimei.
 laŋ-tu tetnah a-laŋ-leimei
 dance-NMZ alone 3SG-dance-PROG
 The dancer is dancing.

Denominalization

Denominalization is derivational morphological process, in which a noun is triggered to change its grammatical category by a prefix or suffix. In Zyphe language, prefix pa is used before a noun to derive into a verb.

32)
 vɔŋ = black
 pa-vɔŋ = Blacken

Classifier

In Zyphe, the numeral classifiers are categorized into two types viz. Mensural numeral classifier and sortal classifiers based on their different shapes size, quantity etc.

Mensural Numeral Classifier

A mensural classifier focuses on quantifying entities in terms of their quantity, particularly used for measuring units of countable and mass nouns

k ^h ah	One hand span
bai k ^h eh	One Basket
pazɔ k ^h eh	One handful
sa k ^h eh	A Bunch
suithla k ^h ek	One tablespoon

Table 11: Mensural Numeral Classifier

33)
 Rungraw baikhe a tlei.
 ruŋrɔ bai-k^he a-tlei
 mango basket-one 3SG-bring
 He brought a basket of mango

34)
 Baihlaw thlai khe a e.
 baihlɔ t^hlai k^he a-e
 banana bunch one 3SG-eat
 He ate a bunch of banana.

35)
 Sang pazaw kheh a pa pe.
 saŋ pazɔ k^he a-pa-pe
 rice handful one 3SG-2SG-give
 He gave me a handful of rice.

36)
 Thing phou khe a phou.
 t^hiŋ p^hou k^he a-p^hou
 wood bundle one 3SG-carry
 He carried a bundle of wood

Sortal Numeral Classifier

A sortal classifier distinguishes entities based on their inherent semantic properties, such as animacy, shape, or consistency, effectively categorizing nouns according to their specific kind or type.

pa	Indicates human being
saŋ	Indicates animals and any kind of objects
puŋ	Indicate a round and long object like bamboo
t ^h lai	Indicates thin and long object like sugercane or bamboo
t ^h la	Indicates a bunch of fruit like banana or grape
tla	Indicates for paper and page of a book
t ^h lui	Indicates fruit
suŋ	Indicates a bundle
p ^h ɔ	Indicates a group of bamboo or wood

Table12 : Sortal Numeral Classifier

- | | |
|---|---|
| <p>37)
 Rungraw kung a he.
 ruŋrɔ-kuŋ a-he
 Mango-CL 3SG-cut
 He cut the mango tree</p> | <p>38)
 Meng thui market taitah ka vase.
 meŋ-t^hui market taitah ka-vase
 pumpkin-CL market from 1SG-bring
 I brought the pumpkin from the market.</p> |
| <p>39)
 Rangraw naw ka lawu
 raŋrɔ-ŋɔ ka-lɔu
 Mango-CL 1SG-pluck
 I plucked the mango leaf.</p> | <p>40)
 Ma hraisia pa he ange.
 ma ʃaisia-pa he aŋe
 DEM hraisia-CL PROX. beautiful
 This hraisia (local flower) is beautiful.</p> |

In the above sentences, different classifiers are seen to be concatenated with the noun to categorize the shape and size of the noun. In sentence (37), the classifier kuŋ is used to indicate a hard and elongated object resembling to a tree. In sentence (38), the classifier t^hui signifies a spherical or round-shaped object, commonly associated with vegetables and fruits. Again in sentences (39) and (40), the classifier ŋɔ denotes flat, thin objects resembling to leaves, while pa represents flowers

Non Verbal Predicate

There are three types of Non-Verbal Predicate is found in Zyphe language. These are nominal predicate, adjectival predicate and locative predicate. In Zype, the locative predicates are expressed by existential marker uŋ.

Nominal Predicate

41)

Tingcy caw pacutu a cang.
 Tiŋtsy-tso patsu-tu a-tsaŋ
 Tingcy-ABSL teach-NMZ 3SG- COP
 Tingcy is a teacher.

42)

A paw caw cibui a cang.
 a-po-tso tsibui a-tsaŋ
 3SG-father-ABSL doctor 3SG-COP
 His/her father is a doctor.

Adjectival Predicate

43)

Ma pavaw he a ngekhy a cang.
 ma pawa he a-ŋek^{hy} a-tsaŋ
 DEM bird PROX 3SG-beautiful 3sg- COP
 This bird is beautiful.

44) Ama caw a cha a cang.

ama-tso a-tsha a-tsaŋ
 3SG-ABSL 3SG-good 3SG- COP
 He is good.

Locative Predicate

45)

Tui khaw letah tui a ung.
 tui-k^h letah tui a-uŋ
 water-pond LOC water 3SG-EXT
 There is water in the pond.

46)

Khua letah ing a cawngtei a ung.
 k^hua letah iŋ a-tsoŋtei a-uŋ
 village LOC house 3SG-few 3SG-EXT.
 There are a few houses in the village.

Adjective

An adjective is a word-class that primarily qualifies or modifies a noun or a noun phrase. In Zyphe, the adjectives are formed in two ways. Basic adjectives are generally lexical items. Derived adjectives are formed noun into an adjective with the help of suffix po

Adjective	Gloss
ṁ uits ^h ɔ	Beautiful
ṁ uits ^h ia	Ugly
siŋ	Clever
heits ^h ia	Brave

Table 13: Adjective

Derived Adjectives

The suffix *pɔ* is used to transform a noun into an adjective.

47)
 Raŋsai - red colour (noun)
 Raŋsai-pɔ - red (adjective)

48)
 raŋsai-pɔ aŋki
 red-Adj. Shirt
 red shirt

Degree of Comparison

The comparative and superlative degrees of adjective are formed with the word *vy* and *tsai* respectively. In Zyphe, *vy* is attached with adjectives to compare between two persons, things etc. Likewise, the superlative form *tsai* is used with adjectives to show the best quality, attributes of something. Examples are given below.

English	Positive	Comparative	Superlative
Tall	asaŋ	asaŋ-vy	asaŋ-tsai
Short	patshing	patshing-vy	patshing-tsai
Good	atsha	atsha-vy	atsha-tsai
Bad	atshia	atshia-vy	atshia-tsai

Table 14: Degree of comparison

Adverbs

Adverbs are conceived of as elements which specify time, place and manner of an action. In Zyphe, adverbs are formed by adding morpheme like /tah/, with an adjective.

Zyphe	Gloss	Zyphe	Gloss
hɔŋsaŋ	Slow	hɔŋsaŋ-tah	Slowly
senuŋ	Neat	senuŋ-tah	Neatly
a ^h aŋ	Loud	a ^h aŋ-tah	Loudly
asiŋ	Smart	asiŋ-tah	Smartly
aneh	Easily	aneh-tah	Easily
ak ^h iŋ	Equal	ak ^h iŋ-tah	Equally

Table 15: Adverbs

Types of Adverbs

Adverbs in Zyphe are categorized into the following types: time, place manner. Examples are given below:

Time Adverb

49)
 Mawngalang Shillong lang ka sei a.
 mɔŋlaŋ shillong laŋ ka-sei-a
 Tomorrow Shillong ALL 1SG-go-FUT
 I will go to Shillong tomorrow.

Place Adverb

50)
 Zeletah maw nah mu ?
 zeletah-mɔ na-ŋ u
 Where-Q 2SG-see
 Where did you meet him.

Manner Adverb

51)
 mary-tah iŋ-laŋ a-vadi rairan-tah
 mary-ERG home- 3SG-come quick-ADVR
 Mary came home quickly

Post Position

Post positions are those words or morphemes that sit immediately after a noun or pronoun which shows a grammatical function which they follow and the verbs of the sentences. Generally, they show the grammatical functions like location, movement, relation, state of a noun or pronoun in a language. In Zyphe, there are some words or morphemes which show these relations are given below.

To	laŋ	From	tai-tah
At/in	letah	On/over	letah
With	k ^h ata	For	tsa-itah
up	tsy	beside	kei
down	tsuh	Inside	letah

Table 16: Post Position

52)
Ingkhang letah ka ung.
ɪŋ-k^haŋ letah ka-uŋ
house-room inside 1SG-BE
I am in the room

53)
A no caitah a vawŋ.
a-no tsaitah a-vɔŋ
3SG-mother for 3SG-come.
He/she came for his/her mother

Conclusion

Zyphe is a morphologically complex language. Typologically it is an agglutinating language in which words are made up of a linear sequence of distinct morphemes and each component of meaning is represented by its own morphemes. It follows SOV word order. It has binary tense system that is future vs. non-future. Only future tense is morphologically marked in this language. The language exhibits highly pro-dropped features, where pronouns are frequently omitted. It is a classifier language, with classifiers always attached to nouns to indicate the shape, size, and quantity of the noun.

References

- Aikhenvald, A. Y. (2000). *Classifiers: A typology of noun categorization devices*. Oxford University Press.
- Dixon, R. M. W. (Ed.), & Aikhenvald, A. Y. (2004). *Adjective clauses: A cross-linguistic typology*. Oxford University Press.
- Dixon, R. M. W. (2010). *Basic linguistic theory: Methodology* (Vol. 1). Oxford University Press.
- Dixon, R. M. W. (2011). *Basic linguistic theory: Grammatical relations* (Vol. 2). Oxford University Press.
- Dixon, R. M. W. (2012). *Basic linguistic theory: Syntax and semantics* (Vol. 3). Oxford University Press.
- Katamba, F. (1993). *Morphology*. St. Martin's Press.
- Lotven, S. A. (2021). *The sound system of Zophei dialects and other Maraic languages* (PhD thesis). Indiana University.
- Payne, T. E. (1997). *Describing morphosyntax: A guide for field linguists*. Cambridge University Press.
- VanBik, K. (2009). *Proto-Kuki-Chin: A reconstructed ancestor of the Kuki-Chin languages* (STED Monograph 89). Sino-Tibetan Etymological Dictionary and Thesaurus Project, University of California.