



International Bilingual Journal of
Culture, Anthropology and Linguistics
ইন্টারন্যাশনাল বাইলিঙ্গুয়াল জার্নাল অফ
কালচার, অ্যানথ্রোপলজি অ্যান্ড লিঙ্গুইস্টিক্স

IBJCAL

eISSN: 2582-4716

আন্তর্জাতিক দ্বিভাষিক ওয়েবিনার আদিবাসী জীবনযাত্রা
(সাহিত্য-সংস্কৃতি-নৃত্য)

International Bilingual Webinar on Tribal Lifestyle
(Literature-Culture-Anthropology) (IBWTL-1)



Url: <https://www.indianadibasi.com/journal/index.php/ibjcal/index>

VOLUME-3; ISSUE 1-2; SPECIAL ISSUE: IBWTL-1, 2020-2021; ibjcal2021SI02; pp. 17-37

Significance of Natural Resources in the Material Culture of Tribal Societies of Assam

Dr. Somenath Bhattacharjee

Assistant Professor, Department of Anthropology, Assam University, Diphu Campus, India.

ARTICLE INFO

Article history:

Received :

Received (revised form):

Accepted :

Paper_Id : **ibjcal2021SI02**

Keywords:

Culture

Oral tradition

Number system

Measurements

Ethnic calendar

ABSTRACT

Oral traditions are the core part of tribal communication system. Generation wise it is transmitted among them. It is part of their cultural tradition and is intimately associated with their socialization process. Such method of traditional communication is the prime essential aspect of the regular mode of livelihood. In any tribal society the process of traditional communication can be divided into a number of sections. Among them the method of number system and measurements are very significant. It is a very crucial aspect for them particularly related to their traditional economic organization and livelihood. The present study is focused on the traditional method of number system, measurements and ethnic calendar among the Karbi tribal people of Karbi Anglong, Assam.

1.0 ORAL TRADITION OF THE TRIBAL PEOPLE

In the context of Indian civilization there are two distinctive but inter related cultural traditions, one was formal, written, literate and reflected few while the other is informal, oral, illiterate and unreflected many. According to Redfield these can be termed as Great tradition and Little tradition respectively. The Great traditional parts primarily include the Sanskrit Vedic Hindu literature and are being cultivated in different schools and temples in different places. These places are often visited by the rural people and





International Bilingual Journal of
Culture, Anthropology and Linguistics
ইন্টারন্যাশনাল বাইলিঙ্গুয়াল জার্নাল অফ
কালচার, অ্যানথ্রোপলজি অ্যান্ড লিঙ্গুইস্টিক্স

IBJCAL

eISSN: 2582-4716

আন্তর্জাতিক দ্বিভাষিক ওয়েবিনার আদিবাসী জীবনযাত্রা
(সাহিত্য-সংস্কৃতি-নৃত্য)

International Bilingual Webinar on Tribal Lifestyle
(Literature-Culture-Anthropology) (IBWTL-1)



Url: <https://www.indianadibasi.com/journal/index.php/ibjcal/index>

VOLUME-3; ISSUE 1-2; SPECIAL ISSUE: IBWTL-1, 2020-2021; ibjcal2021SI02; pp. 17-37

they observe the cultural practices. But those practices are imitated and performed by their own means among the village communities, which works itself out and keep itself going in the lives of unlettered village communities. In this context the tribal culture has its own importance. The daily lives of the tribal people are closely related with their surrounding environment. The tribal culture has its own heritage and it is nourished in the lap of nature. The predominance of unanimous consciousness is well observed in their society. As a result their cultural heritage and their cultural traits and elements are not merely for the individuals rather it is for the entire community as a whole. Being closely related with nature and environment their cultural practices are not only for their recreation, it shows their devotion and obedience to the nature. Their folk cultural elements are nothing but the reflection of interaction between the concerned people and surrounding environment. In Indian context, the tribal artistic life and their cultural heritage primarily includes the following forms-

- (i) Folklore: It includes the oral literature like myths, tales, legends, riddle, proverbs, songs etc.
- (ii) Folk Music and Dance: These include folk song, folk dance etc.
- (iii) Folk art Handicraft and Acrobatics: *These include folk art, drawing, painting, carving, wood craft, metal craft, garment making with decoration, wooden or cotton produce etc.*
(Vidyarthi and Rai 1976: 314)

Among the diversified oral tradition of the tribal people, the communication process is a very significant one. Communication is universal to all human beings and is central to our lives. In fact, it regulates and shapes all human behaviour. Dreaming, talking with someone, arguing in a discussion, speaking in a public, participating in a traditional cultural function, escape from a beast, alert to the people at time of danger, reading of a newspaper, watching television, browsing internet etc are different kinds of communication that we are engaged in every day. It means we are constantly exchanging our thoughts, ideas and motions with someone or other either to satisfy our physical, emotional or other needs or to get work done. It is obvious that communication is an integral part of one's life. In fact, society cannot survive in the absence of communication. Communication is more than





International Bilingual Journal of
Culture, Anthropology and Linguistics
ইন্টারন্যাশনাল বাইলিঙ্গুয়াল জার্নাল অফ
কালচার, অ্যানথ্রোপলজি অ্যান্ড লিঙ্গুইস্টিক্স

IBJCAL

eISSN: 2582-4716

আন্তর্জাতিক দ্বিভাষিক ওয়েবিনার আদিবাসী জীবনযাত্রা
(সাহিত্য-সংস্কৃতি-নৃত্য)

International Bilingual Webinar on Tribal Lifestyle
(Literature-Culture-Anthropology) (IBWTL-1)



Url: <https://www.indianadibasi.com/journal/index.php/ibjcal/index>

VOLUME-3; ISSUE 1-2; SPECIAL ISSUE: IBWTL-1, 2020-2021; ibjcal2021SI02; pp. 17-37

mere transferring or transmission of ideas or thoughts. It is dynamic process of action and interaction towards a desired goal. Communication is, therefore, a process of sharing or exchange of ideas, information, knowledge, attitude or feeling among two or more persons through certain signs and symbols. Communication is vital for human existence and for the progress of humanity. No person, group or society can exist without interaction with others. Human beings are engaged in a variety of communication process; intrapersonal, interpersonal, group and mass communication, the last one being unique in the sense that it differs somewhat from other forms of communication because of a mechanical device interposed between sender and receiver (Deogaonkar and Deogaonkar 2003: 12)

1.1 Anthropology of Numbers:

When it comes to mankind's use and understanding of numbers, what are the simple facts of life? Are there any fundamental things which always apply? Are numbers part of a reality which exists independently of the lives and deaths of individual human beings and the rise and fall of civilizations'? (Restivo 1983: 231). It takes the form of words 'one', 'two', 'three' and so on, representing the lowest numbers in the series, up to a limit determined by the resources of the local language. These words, in whatever language it may be are almost always distinctive (Hurford 1987: 4). Although at an elementary level the use of numbers may not be mathematical at all (and some cultures may go no further than this), sooner or later 'arithmetic is involved in the interpretation of numeral expressions, though nowhere else in language, so numerals are, prima facie' (Hurford 1987: 5). The logical problem is then to discover what exactly numbers are: this requires relating the symbolic numbers, according to the definition just given, to the series of natural numbers, shows a viable society need not even have 'words' for a handful of low numbers, let alone rules of syntax for combining them to represent higher numbers, this requirement is by no means easy to satisfy. The point would seem to be reinforced by the fact that the indefinite extension of the realm of numbers to incorporate all the demands of the cognitive domain at some point requires a written notation. This provides then the earliest record of 'cognitive style', that is the primary mode of thinking about numbers. There is, none the less, no inherent need for the user to be conscious of any abstract





International Bilingual Journal of
Culture, Anthropology and Linguistics
ইন্টারন্যাশনাল বাইলিঙ্গুয়াল জার্নাল অফ
কালচার, অ্যানথ্রোপলজি অ্যান্ড লিঙ্গুইস্টিক্স

IBJCAL

eISSN: 2582-4716

আন্তর্জাতিক দ্বিভাষিক ওয়েবিনার আদিবাসী জীবনযাত্রা
(সাহিত্য-সংস্কৃতি-নৃত্য)

International Bilingual Webinar on Tribal Lifestyle
(Literature-Culture-Anthropology) (IBWTL-1)



Url: <https://www.indianadibasi.com/journal/index.php/ibjcal/index>

VOLUME-3; ISSUE 1-2; SPECIAL ISSUE: IBWTL-1, 2020-2021; ibjcal2021SI02; pp. 17-37

properties of numbers, even at the elementary level of realising that some are odd, while others are even. Numbers as a purely formal system are independent of external reality. Then, even if nobody need be aware that there is an isomorphism between the two (Wittgenstein 1970: 246) and numeracy becomes an indispensable cultural accomplishment (Bloor 1983:92). The reality is that use is made of certain operations and techniques which are central to the training given to children, and are fastened upon, so as to become memorable patterns: 'it's an ethnological fact - it's something to do with the way we live (Wittgenstein 1970: 244, 249). The truth of the proposition that a 'language-game, even in mathematics, can implicate our whole life' (Bloor 1983: 100), mathematics is not so much a science, but a 'language for other sciences' (Davis and Hersh 1983: 343).

Among the different perspective of communication process, the method of traditional number system, measurement and ethnic calendar is a very significant one. It is intimately associated with the livelihood of the illiterate village community members. In their daily livelihood the method of traditional number system is very significant in the traditional economic system and barter exchange method. In this context the present study has been done among the Karbi tribal group of Assam.

2.0 PRESENT STUDY AND METHODOLOGY

Karbi Anglong District is situated in the central part of Assam. The population of the district is predominantly tribal. The major tribal ethnic groups of this district were Karbis, Bodos, Kukis, Dimasas, Hmars, Garos, Rengma Nagas etc. Besides, a large number of non-tribals also lived together in this hill region (Bey 2009:6). The Karbis are the indigenous community of the said region (Lyll 1997:5). The studied people are all belonging to the Karbi tribal group which was the numerically dominant people of the district.

The present study has been done on the basis of empirical field work among a few selected villages under the Diphu sub division of Karbi Anglong district. The studied areas were one of the earliest settlements of the Karbi people. The study was conducted among 372 families with a total





International Bilingual Journal of
Culture, Anthropology and Linguistics
ইন্টারন্যাশনাল বাইলিঙ্গুয়াল জার্নাল অফ
কালচার, অ্যানথ্রোপলজি অ্যান্ড লিঙ্গুইস্টিক্স

IBJCAL

eISSN: 2582-4716

আন্তর্জাতিক দ্বিভাষিক ওয়েবিনার আদিবাসী জীবনযাত্রা
(সাহিত্য-সংস্কৃতি-নৃত্য)

International Bilingual Webinar on Tribal Lifestyle
(Literature-Culture-Anthropology) (IBWTL-1)



Url: <https://www.indianadibasi.com/journal/index.php/ibjcal/index>

VOLUME-3; ISSUE 1-2; SPECIAL ISSUE: IBWTL-1, 2020-2021; ibjcal2021SI02; pp. 17-37

population of 2374. Among them there were 1192 males and 1182 females. The method of traditional number system and measurement was well prevalent among them. Meanwhile the concerned people were primarily associated with their traditional occupational pursuit. In this context, the method of their number system played a very crucial role. The study was conducted during the period of April 2017 to June 2018. There were four divisions of the total field work. Two to three times of field work was done under each division as per the requirement.

Division-1: Foremost, the general observation of the village was done along with the completion of Preliminary Census Schedule (PCS) to know the demographic composition of the studied people.

Division-2: Case studies were taken on the concerned families. It was focused on the issues of their historical background, traditional occupational pursuit, present economic pursuit, folk cultural heritages, indigenous knowledge, traditional method of number systems and measurements.

Division-3: Detailed open structured interviews were taken from the key informant, eldest person of the settlement, leader of the traditional political organization of the concerned society, administrative authority related with the studied settlement. It focused on the relevance of traditional number systems and measurements in the daily livelihood and economic organization of the concerned people.

Division-4: Data was collected about the barter system of the studied people and the significance of the traditional number system in it.

3.0 Objectives of the present study:

The present study is primarily focused -

1. To know about the traditional number system among the studied people.
2. To know about the traditional system of measurements among the studied people
3. To know about the significance of traditional number system in the traditional economic organization of the concerned people.





4.0 TRADITIONAL NUMBER SYSTEM AND MEASUREMENTS OF THE KARBIS

4.1 Traditional Number system: The main units of number system of the Karbis are a simple decimal system. The basic units are the tenth and the multiplications follows with hundredth, thousandth and even further multiplication of thousandth. An in-depth view can generalize the fact that the traditional numbering method of the Karbis represents a unique form till the unit six. Thereafter it represents an addition over six or subtraction from the base of ten. These are as follows-

Table-1: Numerals from 'one' to 'ten'

Independence Form	Gloss	Bound Form (If Different)	Internal Structure	
Isi	One	e-		
Hini	Two	-ni		
Kethom	Three	-thom~thom		
Phli	Four			
Pho	Five			
Throk	Six			
Throksi	Seven			Throk-si ‘six-one’(add)
Nerkep	Eight			Ne-r-kep ‘two-R-ten’(sub)
Sirkep	Nine			Si-r-kep ‘one-R-ten’(sub)
Kep	Ten			

[Here the 'r' represents the subtraction as per the original Karbi dialect].

In the feature of compound numbers, the unit three is represented in a shorten form. A particular term 'kre' is prefixed with the unit from 11 to 19 to represent the compound number feature, so the form will be Kre+ unit= Compound number. Thus, the compound numbers are -

11= Kre-isi; 12= Kre-hini; 13= Kre-thom; 14= Kre-phli; 15= Kre-pho; 16= Kre-throk; 17= Kre-throksi; 18= Kre-nirkep; 19= Kre-sirkep.

The multiple of tenth in the compound form represents a significant feature-



IBJCAL

International Bilingual Journal of
Culture, Anthropology and Linguistics
ইন্টারন্যাশনাল বাইলিঙ্গুয়াল জার্নাল অফ
কালচার, অ্যানথ্রোপলজি অ্যান্ড লিঙ্গুইস্টিক্স

eISSN: 2582-4716

আন্তর্জাতিক দ্বিভাষিক ওয়েবিনার আদিবাসী জীবনযাত্রা
(সাহিত্য-সংস্কৃতি-নৃত্য)

International Bilingual Webinar on Tribal Lifestyle
(Literature-Culture-Anthropology) (IBWTL-1)



Url: <https://www.indianadibasi.com/journal/index.php/ibjcal/index>

VOLUME-3; ISSUE 1-2; SPECIAL ISSUE: IBWTL-1, 2020-2021; ibjcal2021SI02; pp. 17-37

Barring 20= *Ingkoi*, 80 and 90, the rest of the multiplication of 10 are formed in the following format:
Unit+ Ten, thus-

30= *Thom-kep*; 40= *Phli-kep*; 50= *Pho-kep*; 60= *Throk-kep*; 70= *Throksi-kep*. Meanwhile, in case of the unit 8 (*Nirkep*) and 9 (*Sirkep*), 10 (*Kep*), the 'Kep' is already present as a suffix. In such cases the traditional number system of the Karbi people, have taken the help of 6 (*throk*) by prefixing it to the unit of eight and nine to mean 80 and 90. This means-

80= *Throk-nirkep*; 90= *Throk-sirkep*.

The compound numbers from 21 and beyond is termed by having an insertion of 'ra', which may be synonymous with and. It is placed between the tenth unit and the unit. It is represented as-

21= *Ingkoi-ra-isi*; 22= *Ingkoi-ra-hini*; 23= *Ingkoi-ra-thom*;..... 91= *Throksirkep-ra-isi*; 92= *Throksirkep-ra-hini*; 99= *Throksirkep-ra-sirkep*.

Regarding the multiplication of 100, it can be noted that the Karbis consider 100 as 'Pharo', thus the multiple of 100 is the form of Hundred+Unit. It can be represented as-

100= *Pharo-isi*; 200= *Pharo-hini*; 300= *Pharo-thom*;.....900= *Pharo-sirkep*. Further, in Karbi dialect thousand is termed as 'Suri', the multiple of thousand is the form of Thousand+Unit. It can be represented as-
1000 = *Suri-isi*; 2000 = *Suri-hini*; 9000 = *Suri-sirkep*; 10,000 = *Suri-kep*; 50,000 = *Suri-Phokep* etc. It is to be mentioned here that, expressing any number above 20 is represented by inserting a term 'ra' in between thousandth, hundredth, tenth and the unit. If the number is 6539 then it will be = *Suri-Throk ra pharo-pho ra thom-kep ra sirkep*. This rule is practised by a large number of Tibeto-Burman tribal group.

Further, when the number system is associated with any object either living or non living (i.e animal or human etc.) or the shape of the object can be taken into consideration, then such number becomes associated with a clarifier. Here the language structure of the said number system will be-
Object+ Number + Clarifier (when the object is singular) and





International Bilingual Journal of
Culture, Anthropology and Linguistics
ইন্টারন্যাশনাল বাইলিঙ্গুয়াল জার্নাল অফ
কালচার, অ্যানথ্রোপলজি অ্যান্ড লিঙ্গুইস্টিক্স

IBJCAL

eISSN: 2582-4716

আন্তর্জাতিক দ্বিভাষিক ওয়েবিনার আদিবাসী জীবনযাত্রা
(সাহিত্য-সংস্কৃতি-নৃত্য)

International Bilingual Webinar on Tribal Lifestyle
(Literature-Culture-Anthropology) (IBWTL-1)



Url: <https://www.indianadibasi.com/journal/index.php/ibjcal/index>

VOLUME-3; ISSUE 1-2; SPECIAL ISSUE: IBWTL-1, 2020-2021; ibjcal2021SI02; pp. 17-37

Object + Clarifier + Number (When the object is plural). In this aspect,

One egg = Egg + One + Clarifier = *Voti-I-Pum* (*Voti* =Egg, *I* = One, *Pum* =Clarifier).

Four eggs = Egg + Four + Clarifier = *Voti- Pum- Phli* (*Voti* =Egg, *Phli* = Four, *Pum* =Clarifier).

It is to be mentioned here that, the clarifiers varies according to the shape of the object. If the object is round in shape or spherical then '*Pum*' is termed as the clarifier. If the object is a human being then '*Bang*' is used as a clarifier for singular and '*Nut*' is used as a clarifier if the object is plural. So A man is termed as '*Monit-I- Nut*' and Two men are termed as '*Monit-bang-Hini*'. It is to be mentioned here that, if the object is a non living being then in case of two or three irrespective of '*Hini*' and '*Kethom*' only '*Ni*' and '*Thom*' are applied. However in case of living being this rule is not followed. Further, the clarifier associated with flora is '*Romg*' means the plant. Thus one mango tree is termed as *Tharve-I- Rong*, four guava trees as *Menduram-Rong-Phli*. Meanwhile, when the objects are in pair the '*chor*' is termed as the clarifier. So, Six pair of shoes will be *Keng-op-chor-throk*. It can be noted here that the common clarifiers are Pak = Flat object, Jon =Fauna, Hum = Household, Run = Room, Hong = Elongated object, Bong = Bottle or cylindrical object etc. (Source: Field study, 2017- 2018 and Teron,2012: 28).

There are different types of calculation method as practised by the Karbis, these are-

- i) *Kepangrum*(Addition)
- ii) *Kethan/Kepadam*(Subtration)
- iii) *Kepachan/ Kepakam* (Multiply)
- iv) *Kethak* (Division)

- i) **Kepangrum (Addition):** The process of calculating the total of two or more numbers or amount is known as Addition. Addition is finding the total or sum by combining two or more numbers. It means combining of numbers of two or more or amount or any object. It signified





by the plus sign (+). For example: $3+2=5$ which combine the two numbers into one which is equal to 5.

- ii) **Kethan/kepadam (Subtraction):** The process or skill of taking one number or amount away from another is called Subtraction (kethan/ kepadam). Subtraction means you are taking away from a group or number of things. When we subtract (kethan), what is left in the group or things becomes less. It signified by the sign of minus. For example: $5-3=2$ suppose there are 5 apples if we subtract or take away 3 apples, then there will be only 2 apple which is already subtract or take away.
- iii) **Multiply (Kepachan/ Kepakam):** Multiply or Kepakam means a repeated addition. Multiplication is one of the four elementary, mathematical operation of arithmetic. Multiplication is also defined for other types of numbers, such as complex numbers and more abstract construct, like matrices. The first meaning for multiplication is developed for equal groups situations, calculated by repeated addition. It signified the multiply sign as (x). For example: $6 \times 3=18$ it means adding 6 itself three times.
- iv) **Division (Kethak):** It is the process of splitting the numbers or amount or object into equal parts or groups. Division is the act to separate something into parts or groups equally or the way that it is separated. For example: There are 20 apples which have to distribute among 5 person equally. Therefore $20/5=4$, 4 apples each of the 5 person can be distribute among them.

4.2 Traditional System of Measurements

The Karbis have their own age old traditional system of measuring land, weight, distances/length and time count. Karbis usually use their body parts starting from hair to toe in order to measure or describe the size, length and weight of a particular thing. For Time or to keep timing the Karbi sticks to sun during the day and moon and stars at night. The cock or *Voloki* is also one of the vital source as used by the Karbis as alarm to keep the Time/Timing. Besides these, certain cries of an insect are also used as time indicator by Karbi people to count time. These methods of measurement and time



International Bilingual Journal of
Culture, Anthropology and Linguistics
ইন্টারন্যাশনাল বাইলিঙ্গুয়াল জার্নাল অফ
কালচার, অ্যানথ্রোপলজি অ্যান্ড লিঙ্গুইস্টিক্স

IBJCAL

eISSN: 2582-4716

আন্তর্জাতিক দ্বিভাষিক ওয়েবিনার আদিবাসী জীবনযাত্রা
(সাহিত্য-সংস্কৃতি-নৃত্য)

International Bilingual Webinar on Tribal Lifestyle
(Literature-Culture-Anthropology) (IBWTL-1)



Url: <https://www.indianadibasi.com/journal/index.php/ibjcal/index>

VOLUME-3; ISSUE 1-2; SPECIAL ISSUE: IBWTL-1, 2020-2021; ibjcal2021SI02; pp. 17-37

count still exist among the Karbis in their villages even though people are accustomed with western appliances and amenities.

The livelihood of the rural Karbi people are quite simple in nature. They practice their cultural tradition with a high dignity and value. Their traditional measurement of time was first introduced after the formation of 'Sar' or *Sarthe* or *Rong asar* or village headman. Therefore we can say that the first 'Sar' or *Rong asar* that is the village headmen gave the ideas and orders of the system of measurement and time. Since then the Karbi people uses the ideas and system of *Rong Asar* or Headmen even after they were scattered to different province with their respective *Longri Lindokpo*. At the initial stage, when the Karbis were in the common village or area they used the same kind of measurement. After they were scattered to different provinces where they formed different villages and appointed their own 'Sar' or *Rong asar* or Village headmen, the measurement of length and area became different or uneven, as the physical size of different *Rong asar* are different. But none of the Karbi people has any complain about the measurement of length, because they have strong faith and rely on their customary law, where the word of 'Sar' or (*Rong asar*) (Village headmen) is the ultimate verdict and justice. Different types of their traditional measurements are mentioned below-

4.2.1 Measurement of Length, Area and Size:

Prior to the knowledge of international standard of measurement the Karbi uses their own system of measurement. To measure a particular length or area or size they used different technique. The most common technique is comparison technique, which they gain the knowledge through experience and observation. Most of the instrument used by the Karbis are their body part like, *Chimun* or finger (any finger, use in comparing size), *A chak* (full stretch of a thumb and an index finger), *Chak munjong*, *chak munpi*, *chak munso* etc. *Angrup*, or '*Ingrup*' which is measured from elbow to tip of index finger which is about one and half feet. *Tengkup* is another part of measurement which is usually used in addition to *Angrup* or to fill in the remains of *Angrup*. *Kettok*, (*ketvar*) the full length





International Bilingual Journal of
Culture, Anthropology and Linguistics
ইন্টারন্যাশনাল বাইলিঙ্গুয়াল জার্নাল অফ
কালচার, অ্যানথ্রোপলজি অ্যান্ড লিঙ্গুইস্টিক্স

IBJCAL

eISSN: 2582-4716

আন্তর্জাতিক দ্বিভাষিক ওয়েবিনার আদিবাসী জীবনযাত্রা
(সাহিত্য-সংস্কৃতি-নৃত্য)

International Bilingual Webinar on Tribal Lifestyle
(Literature-Culture-Anthropology) (IBWTL-1)



Url: <https://www.indianadibasi.com/journal/index.php/ibjcal/index>

VOLUME-3; ISSUE 1-2; SPECIAL ISSUE: IBWTL-1, 2020-2021; ibjcal2021SI02; pp. 17-37

of an arm or a hand from sleeve to tip of index finger. *Alam* is another method of measuring things, *Elam* means full length of wide open arms which is one and a quarter metres long.

Elam means full length of wide open arms which is one and a quarter metres long. In measuring the land Karbi people uses *Tharlon* or *Barlon*), a stick which is usually taken the *Angrup* (length of elbow the index finger tip) for general, and *Klengsarpo Angrup* for youths during *Jirkedam* is applied during Jhum cultivation, to distribute the portion of land. One *Tharlon* or *Barlon* consist of *Ingrup 8 ra I- chak* or *Ingruo 8*, equivalent to about 12 feet. It is also applied to measure the land of settlement villages. “*Anong*” is another unit of measurements which covers an area of about 72 feet by 24 feet in length and breadth respectively. There is also another *Tharlon* called as *Chiri*. A *Tharlon* which is 20 or 24.75 feet or 30 feet in length, while a *Chiriisi* or one *Chiri* constitutes of 20 times measurement or 20 putsek or post measurement in round or rectangle.

The area of a land is not measured during the early days, the Rong Asar or Headmen would just point out certain hills to certain clan or family to occupy for Jhum cultivation. The divided land may be indicated by slope of a hill or a certain trees (from that particular tree to that tree). The divided land is not measured equally, the land is given or divided accordingly as Rong asar wills, he use to just point out with his finger or his lips from some distance.

a] Size: To measure the size of a certain things, how big/huge or small, the Karbi compare them with whatever sizes they have already recorded it. For example, the smallest thing they use to compare is with *Chujeng* or a hair size and *Cherongmi*, little red insect. Otherwise, they use the size of an animal, for example the biggest thing may be compared with the size of an Elephant. To measure the size of a certain circumference, hands are used. For bigger things or circumference of a big tree or a body *Alam* wide open is used.





International Bilingual Journal of
Culture, Anthropology and Linguistics
ইন্টারন্যাশনাল বাইলিঙ্গুয়াল জার্নাল অফ
কালচার, অ্যানথ্রোপলজি অ্যান্ড লিঙ্গুইস্টিক্স

IBJCAL

eISSN: 2582-4716

আন্তর্জাতিক দ্বিভাষিক ওয়েবিনার আদিবাসী জীবনযাত্রা
(সাহিত্য-সংস্কৃতি-নৃত্য)

International Bilingual Webinar on Tribal Lifestyle
(Literature-Culture-Anthropology) (IBWTL-1)



Url: <https://www.indianadibasi.com/journal/index.php/ibjcal/index>

VOLUME-3; ISSUE 1-2; SPECIAL ISSUE: IBWTL-1, 2020-2021; ibjcal2021SI02; pp. 17-37

b] Length or Distance: In measurement of length and distance the Karbis usually applied the following methods.

- i) A Chak – full stretch length of a thumb and index finger, for shortest or length or distance. About 17 cm, not even.
- ii) Angrup – from elbow to tip of an index finger. About one and half feet. Prominently used in measuring land .
- iii) Kettok - from sleeve to tip of an index finger. About 70 cm.
- iv) Alam - Length of Both hand wide open. About 140 cm.
- v) Kengkam – Normal walking steps. 20 or 30 steps

Kengkam is used to tell the distances of nearby. Number of Hills and mountain are used to tell the long distanced places. The Sun duration and number of days are also used by the Karbi to measure distances and length. Example, Arni Barlon isi, (about 12 feet after the sun rise) arni kangthim (whole day) ,etc Till 90's Karbi people could walk more than 100 km a day. . still, today people from remote villages could still walk that distances in a day.

c] Measuring the River: To measure the depth of a river Karbis usually apply height of their physical body, like *arje isi* , *arje hini* , *arje kethom* . Arje isi mean one full height of self or some body. To measure the depth of a river another method is, comparing with the length of a tender bamboo, *Chek arjang*, which is of normally 35 to 40 feet long.

Wide of a river or stream is measured in associating with their strength or related to their strength. For eg, *Chonjet un*, which means to jump across, or which can be swam across.

d] Measuring the Amount of Grains:





The Karbis are primarily associated with Jhum cultivation. Along with that, they used to settled cultivation also. They have their own system to measure the amount of grains like paddy, pulses etc. These are-

1. *Chekip isi*: A Handful
2. *Chepu hini* : Two hands joined ('palms wide open') .
3. *Edang*: 20 kgs
4. *Mon*: Maund, 40 kgs.

Karbi people use different size of 'Ton' or bamboo made baskets to measure the amount of grain (Phangcho,2003: 31).

4.2.2 Traditional measurements of liquid items:

The Karbis have their own measurements for liquid items like water, milk, oil etc. It is usually measured by the height of the liquid contained in their respective container like in bottle or jar. These are-

1. *Chimun isi*: 1 inch height of the liquid contained in the container.
2. *Chimun hini*: 2 inches height of the liquid contained in the container.
3. *Ebeng*: Half of the container
4. *Cheteng*: Half litre.

4.2.3 Traditional Calendar of the Karbis:

The Karbis have their own pristine calendar. Among the Karbis, New Year starts from the 1st day of February. The months are counted from February to January. Accordingly, the local religious festivals and other social occasions are fixed. They have own ethnic names of weekly days and months as mentioned below-

Table-2: Ethnic names of Days and Months

Month	Traditional name	Month	Traditional name	Day	Traditional name



January	<i>Arkoi</i>	July	<i>Jakhong</i>	Monday	<i>Urmi</i>
February	<i>Thangthang</i> -New year	August	<i>Paipai</i>	Tuesday	<i>Durmi</i>
March	<i>There</i>	September	<i>Chiti</i>	Wednesday	<i>Thelang</i>
April	<i>Jnagmi</i>	October	<i>Phre</i>	Thursday	<i>Theman</i>
May	<i>Aru</i>	November	<i>Phaikuni</i>	Friday	<i>Bhomta</i>
June	<i>Vosik</i>	December	<i>Matijong</i>	Saturday	<i>Bhomti</i>
				Sunday	<i>Bhomkuru</i>

(Source: Field study, 2017- 2018).

Among the Karbis, an ethno-ecological perspective prevails along with even month in the year. Each of the months is characterized by some natural and ecological character as mentioned below-

i) Thang Thang (February): This month is characterised by flowering of Pharche and Pharkong. These are the most important indicators of this period, which reminds the people of the appropriate time to look for new jhum land. This month is regarded as a New Year of Karbi society. Karbi society mainly depend on jhum cultivation and this month is starting month of jhum cultivation which people used select for a new jhum site.

ii) The-re (March): This period is indicated by hot days and is considered as the most suitable period for drying slash produced from clearing of forest. The phrase *The-re mam te* reflects it like mam: slash; te: to dry. This month is regard as the dry season, the slash produced during time of clearing forest it used to be dried in this month.

iii) Jangmi (April): This period coincides with hectic courtship and nesting of all types of birds; their melodious chirping can be heard during the day. The days are hot and windy. Because, these biological and physical features usually foretell a shower. It is believed that profuse flowering of *tharve* and *jangphong* foretell storm in the days that follows. The days are windy so it is easy to built fire. Therefore, usual practice is people go to jhum land without carrying fire along with them. Fire is built by rubbing a dry bamboo split called *meh ari* (meh ri in short) against a



International Bilingual Journal of
Culture, Anthropology and Linguistics
ইন্টারন্যাশনাল বাইলিঙ্গুয়াল জার্নাল অফ
কালচার, অ্যানথ্রোপলজি অ্যান্ড লিঙ্গুইস্টিক্স

IBJCAL

eISSN: 2582-4716

আন্তর্জাতিক দ্বিভাষিক ওয়েবিনার আদিবাসী জীবনযাত্রা
(সাহিত্য-সংস্কৃতি-নৃত্য)

International Bilingual Webinar on Tribal Lifestyle
(Literature-Culture-Anthropology) (IBWTL-1)



Url: <https://www.indianadibasi.com/journal/index.php/ibjcal/index>

VOLUME-3; ISSUE 1-2; SPECIAL ISSUE: IBWTL-1, 2020-2021; ibjcal2021SI02; pp. 17-37

dry bamboo stick called *meh thengdang* (thengdang in short). The phrase *jangmi meh ri'* refers to people looking for a suitable *meh ri'* to built fire, which is a common scene of this month. Another method of building fire is by rubbing two pieces of stones against each other. This is a tedious method and usually not preferred, at least during this period.

iv) Aru (May):

The most reliable indicator of this period is marked profuse vegetative growth of hankedok, which constitute the handiest vegetable for people working in the jhum field. On the other hand, people clean up previous year's jhum followed by sowing of seeds and tilling of soil as highlighted by the phrase *Aru, ram nong* (ram: old jhum land; nong: to till the soil). Important animal indicator of this month includes appearance of an ant called *Hanghoi* in large number. It is very delicious and often consumed; also often used as fish bait.

v) Vosik (June): The most important indicator of this month is blooming of an under shrub *Mirvosik*. Bamboo starts forming new shoots and therefore, it is a common phenomenon that the people use to glance bamboo stands looking for the shoots for consumption. People use to clear undesirable bamboo stands is a crucial activity during this period. This act of clearing is called *phang kechek* (phang: bamboo stand; kechek: to break canopy). By this time most people completes tilling their land as well as sowing. Flowering of another floral indicator *Paipe*, a local grass indicates end of tilling and sowing of crops. The Karbis believe that seeds sown after the blooming of this grass do not reach maturity.

vi) Jakhong (July): This period is indicated by the rapid growth in height of bamboo shoots, which is explained by the phrase *jakhong, hen-up kardong* (hen-up: bamboo shoots; *kardong*: marked vertical growth). People are free from jhum related work and therefore, they get busy collecting bamboo shoots for immediate consumption and storage. Weeding starts and after a hard day's work, people enjoy by consuming various fruits including *thengthe* and *thoithe*, a common scene of this period. A local species of frog starts crocking; and *Vosobiku*, a seasonal bird starts singing.





International Bilingual Journal of
Culture, Anthropology and Linguistics
ইন্টারন্যাশনাল বাইলিঙ্গুয়াল জার্নাল অফ
কালচার, অ্যানথ্রোপলজি অ্যান্ড লিঙ্গুইস্টিক্স

IBJCAL

eISSN: 2582-4716

আন্তর্জাতিক দ্বিভাষিক ওয়েবিনার আদিবাসী জীবনযাত্রা
(সাহিত্য-সংস্কৃতি-নৃত্য)

International Bilingual Webinar on Tribal Lifestyle
(Literature-Culture-Anthropology) (IBWTL-1)



Url: <https://www.indianadibasi.com/journal/index.php/ibjcal/index>

VOLUME-3; ISSUE 1-2; SPECIAL ISSUE: IBWTL-1, 2020-2021; ibjcal2021SI02; pp. 17-37

vii) Pai Pai (August) : Ripening and harvesting of an early variety of a local rice, called *Soksu* (*Ahu*) marks the arrival of this month. People can usually be seen carrying paddy in the mandu, a small farm house in the jhum and the phrase *pai pai, sok mandu lut jai* aptly reflects this scene (mandu: farm house; lut jai: to carry inside). Also, this is the first phase of harvesting of the season. Most of the plants are blossomed with flowers and fruits. Late variety of upland paddy *Chubok* starts flowering. Snakes and spiders become very aggressive, which coincide with their breeding period. For this, people usually remain cautious while moving in the forests.

viii) Chiti (September): Ripening of *Soprim* or *Menduram* (Guava) and cultivation of *Lac* is a markable indicator of this period. This period is best suited for preparing a special item of fermented bamboo shoots referred as *Hen-up ahi*. The shoots are cut into fine pieces and stored in bamboo baskets called *Hor hi* for fermentation. This is reported to increase flavour of the food. In olden days, even pork and *Bonghom* (Pumkin) are stored along with hen-up to enhance aroma and taste of the meat and the fruit. Preparation of *Hen-up ahi* is associated with celebration of harvesting festival by performing traditional dance called as *Hacha Kekan* or *Hen-up Ahi Kekan*. This dance is highly honoured as bamboo shoots constitute an important source of food, next to paddy. Today, however, this festival is losing its shine mainly due to change of habitat and modernization.

ix) Phre (October):

Chubok, an upland cultivar of paddy starts ripening and this feature has long been used as traditional indicator of this month which is exemplified by the phrase *phre, sokthe* (sok: paddy; the:ripens). Tamir (*Pennisetum typhoideum*) and tumdak (*Coix lacryma-jobi*) flowers; nempo (*Seasamum indicum* DC.; Pedaliaceae) flowers and fruits. These features foretell arrival of a shower referred as *Arnam dam arve*, which is usually expected after Durga Puja. The Karbis believe that all Deities come down to the earth to see their people and return to their abode with a shower (Arnam: God; dam: to go; arve: rain). *Vo kathaiso*, a seasonal bird is often seen sitting in long rows on house top.





During this month, granary usually become exhausted and common people often suffer from hunger because *Chubok* (paddy) is still a month away for harvesting. It is reported that *Nilo* (unusual high temperature) and heavy rain or appearance of weed, pest, etc. during this month foretell possibility of a misfortune called *Akhim* (famine) in the coming days.

x) Phaikuni (November):

Arrival of this precious month is predicted by the ripening and harvesting of *Chubok* and stacking of the same is big heaps called *Sokbui*. Simultaneously, harvesting of paddy starts in the plains. *Sokbui pangni* literally means stacking of unthreshed paddy (*sok: paddy; pangni: to stack*). It is reported that ripening and harvesting of *Chubok* is sufficient to predict to commencement of this month.

xi) Matijong (December): Stacking of unthreshed paddy gets almost complete in all the houses of plains or hills even from distant places. People can commonly be heard comparing the sizes of *Sokbui* of their neighbours which is corroborated by the phrase *Matijong sokbui chejong* (*sokbui: paddy stack; chejong: to point*). Vegetation remains dry. People use to carry *Nembo*, *Pholo* (*Gossypium herbaceum* L.) and other minor products from jhum field to their villages, is another common scene associated with this month.

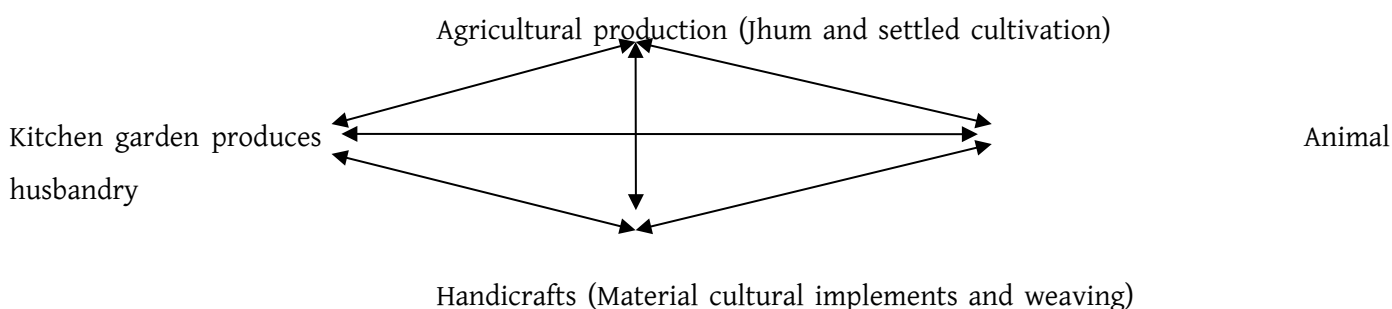
xii) Arkoi (January): Hectic activity of carrying bundles of paddy from jhum field to native village is reported to indicate the arrival of this month as the phrase *Arkoi, sok roi* says it all (*sok: paddy; roi: to carry*). In olden days, completion of carrying paddy from the field is celebrated by performing the traditional dance called *Hacha Kekan* (Festival of Harvest), also regarded as cultural identity of Karbis. *Bechurang* (fermented rice) specially prepared for the occasion is used to solemnise the festival.

5.0 Significance of Traditional Number system and Ethnic calendar:

Traditional number system and ethnic calendar bears a special resemblance in the livelihood of the Karbis, particularly dwelling in rural areas. It bears a special resemblance to their barter economic system and Jhum cultivation. It is discussed below in brief-



5.1 Barter exchange: The economic organization of the Karbi people is intimately based upon indigenous resources. A Karbi family may be associated with a particular or more than one occupational pursuit both primarily and secondarily. However, in the remote villages presence of regular market cannot be noticed. In such cases, the regular common minimum livelihood requisites are managed by the village dwellers by themselves. In the local villages it is highly maintained through the barter system. In the barter system, entire exchange of goods is done on the basis of their traditional number system. In different parts of the district, there are total 19 traditional weekly markets or *Hats*, which is locally termed as *Hithi*. In such traditional weekly markets, barter exchange in between the Karbis is totally getting conducted through their traditional number system only. It is playing a very crucial role to hold the rural economic backbone. The barter method in the studied areas is represented through the following diagram-



The quantity of the productions and the required amounts is based upon the traditional method of number system. It can be noted that the amount of exchange is not based upon exact proportion but it is associated with the requisite of the people.

5.2 Jhum cultivation: The traditional occupation of the Karbis are Jhum cultivation. The procedure of the entire method is very much related to seasons and months. Accordingly, different activities are completed to secure the source of prime staple food and entire livelihood.

Table 3: Pristine jhum calendar of the Karbis

Sl. No.	Karbi month	English equivalent	Climatic condition	Activities related to
---------	-------------	--------------------	--------------------	-----------------------



		month	and natural indicator	Jhum
1.	<i>Thang-thang</i>	February	Dry	Suitable land in selected and bushes cleared.
2.	<i>There</i>	March	Dry and windy.	Bushes are left to dry. After drying, it is burnt.
3.	<i>Jangmi</i>	April	Moderate climate with very little amount of rainfall.	Left over bushes are cleared and seeds are sowed. Eg. Maize, tubers, brinjal, etc.
4.	<i>Aru</i>	May	Mosoon starts.	Rice is cultivated.
5.	<i>Vosik</i>	June	Heavy rainfall with lots of humidity.	Weeds are removed from the cultivated area.
6.	<i>Jakhong</i>	July	Heavy rainfall with lots of humidity.	Seasame can be sowed. Maize harvested
7.	<i>Pai-pai</i>	August	Heavy rainfall with lots of humidity.	Rice are collected.
8.	<i>Chiti</i>	September	Amount of rainfall decreases.	Rice are collected.
9.	<i>Phre</i>	October	Monsoon retreats clear sky.	Seasamum (til) are collected.

6.0 CONCLUDING REMARKS



International Bilingual Journal of
Culture, Anthropology and Linguistics
ইন্টারন্যাশনাল বাইলিঙ্গুয়াল জার্নাল অফ
কালচার, অ্যানথ্রোপলজি অ্যান্ড লিঙ্গুইস্টিক্স

IBJCAL

eISSN: 2582-4716

আন্তর্জাতিক দ্বিভাষিক ওয়েবিনার আদিবাসী জীবনযাত্রা
(সাহিত্য-সংস্কৃতি-নৃত্য)

International Bilingual Webinar on Tribal Lifestyle
(Literature-Culture-Anthropology) (IBWTL-1)



Url: <https://www.indianadibasi.com/journal/index.php/ibjcal/index>

VOLUME-3; ISSUE 1-2; SPECIAL ISSUE: IBWTL-1, 2020-2021; ibjcal2021SI02; pp. 17-37

The cultural tradition of the tribal people has its own unique feature. It is oral in nature and has its own significance as the little tradition in greater Indian civilization. Their cultural tradition has numerous diversifications. Among them the traditional number system, measurements and ethnic calendar bears a special resemblance. It is recognised that language is the vehicle of culture. Among the tribal societies in most of the cases the local communication is based upon their oral dialect. It is enculturated and transmitted through them generation wise. On the other hand it has framed the rhythm of their traditional folk cultural heritage. In the context of the present study, the Karbi people had their local dialect and traditional method of communication. Although in certain cases they are multilingual but within their own communication and particularly in the interior rural areas, the local dialect is the basic communicating medium. It is associated with an unique traditional number system, the system of measurement and application of ethnic calendar. It has a descriptive method specifying about the shape and quantity of the object. The traditional Karbi society has its own ancestral economic practices. Particularly the Jhum cultivation is directly related to their ethnic calendar and consequent season. The local produces are generated on the basis of their indigenous knowledge. In the village areas the barter method is practised to a large extent to meet up with the common minimum livelihood requisites at the local level. This system is entirely conducted on the basis of the local numerical system. Thus it can be stated that, the traditional number system, measurement and ethnic calendar of the Karbis' is a core part of their culture and it is the fundamental aspect of their livelihood.

7.0 REFERENCES

- Bey, M. S. (2009). *The Karbi Belief*. Karbi Lammet Amei.
- Bloor, D. (1983). *A Social Theory of Knowledge*. Macmillan.
- Davis, P. J. & Hersh, R. (1983). *The Mathematical Experience*. London, Pelican.
- Deogaonkar, S. G. & Deogaonkar, S. S. (2003). *Tribal Dance and Songs*, Concept Publishing Company, New Delhi.
- Hurford, J. R. (1987). *Language and Number*. Blackwell.
- Lyll, C. (1997). *The Karbis*. Spectrum Publication.





International Bilingual Journal of
Culture, Anthropology and Linguistics
ইন্টারন্যাশনাল বাইলিঙ্গুয়াল জার্নাল অফ
কালচার, অ্যানথ্রোপলজি অ্যান্ড লিঙ্গুইস্টিক্স

IBJCAL

eISSN: 2582-4716

আন্তর্জাতিক দ্বিভাষিক ওয়েবিনার আদিবাসী জীবনযাত্রা
(সাহিত্য-সংস্কৃতি-নৃত্য)

International Bilingual Webinar on Tribal Lifestyle
(Literature-Culture-Anthropology) (IBWTL-1)



Url: <https://www.indianadibasi.com/journal/index.php/ibjcal/index>

VOLUME-3; ISSUE 1-2; SPECIAL ISSUE: IBWTL-1, 2020-2021; ibjcal2021SI02; pp. 17-37

Phangcho, P.C. (2003). *The Karbis of North-East India*. Angik Prakashan.

Restivo, S. (1983). *The Social Relations of Physics, Mysticism and Mathematics*. D. Reidel Publishing Company.

Teron, D. (2012). *The Karbi Studies*. Assam Book Hive.

Vidyarthi, L.P. & Rai, B.K. (1976). *The Tribal Culture of India*. Concept Publishing.

Wittgenstein, L. (1970). *Lectures and Conversations on Aesthetics, Psychology and Religious Belief*. Blackwell.

