

# National Mission on Himalayan Studies (NMHS)

## PERFORMA FOR THE QUARTERLY PROGRESS REPORT

(Reporting Period from *1<sup>st</sup> April, 2019 to 31<sup>st</sup> June, 2019*)

### 1. Project Information

<b>Project ID</b>	GBPNI/NMHS-2017-18/SG-27
<b>Project Title</b>	<b>“Documentation of Indigenous knowledge system of selected major tribes of Arunachal Pradesh and the relevance of Intellectual property right to IKS“</b>
<b>Project Proponent</b>	North Eastern Regional Institute of Science & Technology (NERIST), Nirjuli, Itanagar, Arunachal Pradesh

### 2. Objectives

- To document the indigenous knowledge system in various aspects like weaving, handicraft, woodcarving, and natural resource management of the selected tribes;
- To prioritise the indigenous knowledge system based on the relevance to IPR;
- To create awareness regarding IPR amongst the stakeholders;
- To prepare digital database dedicated to the indigenous knowledge system.

### 3. General Conditions

- The baseline data should be provided within the 1<sup>st</sup> quarter since the project initiation.
- The Periodic Progress Report of the NMHS Project needs to be submitted and updated on the Online Portal of the NMHS (<http://nmhsportal.org>) by the PI/ Project Proponent **on Quarterly basis** consistently. Monitoring indicators for the project should be able to quantify the difference made on ground.
- A Certificate should be provided that this work is not the repeat of earlier work (as a mandatory exercise).
- The roles and responsibilities of each implementing partners should be delineated properly with their budget. The budget allocations to partners should be done in accordance with the MoEF&CC guidelines (Max. 30% for salary, 30% for equipment and 5% contingency). The same should be communicated to NMHS-PMU, before start of the project.
- The PI must also submit **all the supporting data generated** under the NMHS Project along with the quarterly progress report to NMHS-PMU.
- On completion of the study, a Seminar/ Conference/ Workshop should essentially be organized by the PI/ Proponent to discuss and disseminate the findings among the experts and concerned stakeholders.

4. Progress (fill only 3<sup>rd</sup> and 4<sup>th</sup> Column)

Quantifiable Deliverables	Monitoring indicators	Progress made against deliverables in terms of monitoring indicators	Supportive documents (PDF, Word, Excel, JPG, TIFT)
1	2	3	4
<ul style="list-style-type: none"> <li>• Database on indigenous knowledge system in various aspects of the selected tribes.</li> <li>• Web based data base for screening and prioritisation of indigenous knowledge system based on IPR.</li> <li>• Capacity building of 5 tribal communities in 5 districts through extension programs on IPR and IKS.</li> <li>• Dissemination of information on IPR and IKS through the digital database.</li> </ul>	Monitoring in comparison to the baseline information to be provided by the proponent in the 1 <sup>st</sup> Quarter:	Base line surveys on indigenous knowledge system of selected tribes of Arunachal Pradesh were done based on secondary literature survey.	Submitted during 1 <sup>st</sup> reporting period w.e.f. 1 <sup>st</sup> May to 31 <sup>st</sup> July 2018.
	• No. data sets of selected tribes and Database	Traditional handloom practice of Apatani tribe was documented.	A Word file is enclosed herewith (Annexure-I).
	• No. of Web updates made periodically;	Web page launched and updates (www.ipr4iks.com)	-
	• No. of Capacity Building Programmes and No. of stakeholders benefitted.	-	-
	• Publications and knowledge products (Nos.).	“Byopa: A traditional headgear of Nyishi tribe from Arunachal Pradesh (India) and its relevance to Geographical Indication” a research paper published on 30 <sup>th</sup> June 2019 in peer reviewed journal called <i>Pleione</i> .	Annexure-II

5. Financial Progress(fill only 3<sup>rd</sup> and 4<sup>th</sup> Column)

Head	Total Budget Allocated (Rs) (Carry forwarded)	The Balance Amount (Rs)	Supportive documents (PDF, Word, Excel, JPG, TIFT)
1	2	3	4
(i) Salary	Rs. 1,29,823	Rs. 9,823	
(ii) Travel	Rs. 2,20,199	Rs. 2,06,199	
(iii) Contingency	Nil	Rs. -7350	
(iv) Activities & other project cost	Rs. 1,07,053	Rs. 1,07,053	
<b>B. Non Recurring</b>			
(i) Equipment ( as Above)	Rs. 2,36,600	Rs. 15,060	
<b>Total</b>	<b>6,93,675</b>	<b>3,30,785</b>	

\* Rs. 2,21,540 is committed.

UC Submitted Yes/No: Not yet

## **Overall Achievements:**

**A. Current status of Project:** Appointment of project staff.

1. Mr. Niraj Rai (JPF)
2. Mr. Jayanta Gogoi (JPF)
3. Mrs. Lej Nain (Project Assistant)

**B. Equipment purchasing:**

Till now, 4 sanctioned project equipments were supplied by the supplier i.e., Sony Projector (VPL EX 450), Projector Screen (4ft x 6ft), Generator (Honda EP 1000 Petrol) and Sony handycam.

**C. Documentation of traditional handloom practices:** Documented traditional handloom practices of Apatani tribe from Lower Subansiri district.

**D. Website:** Website for awareness of IPR as well as protection of IKS has been launched and updated periodically ([www.ipr4iks.com](http://www.ipr4iks.com)).

# Annexure-I

## Weaving in Apatani Tribe

Weaving is a traditional practice of Apatani tribe of Arunachal Pradesh. It has been practiced since time immemorial and this traditional knowledge passed from one generation to another. The traditional attire of Apatani tribe is unique and it can be easily distinguished from other tribes due to use of different unique motifs and designs.

The traditional attires are also differentiated based on the age of the person and especially woven for specific section, gender and age group. In case of the male folk, special attires are designed for priest wherein exclusive attires are design and are not allowed to wear by commoners. However, nowadays it is not restricted. In case of female folk, traditional attires are much more in number than male folks. Besides, there are some traditional attire that are especially wore only during auspicious occasions viz., festival, religious ceremonies etc.

## Traditional Handloom of Apatani Tribe

The traditional handloom of Apatani tribe is a type of Loin loom which is locally called as *Chichin* and found similar to the traditional handlooms of other tribe like Nyishi tribe. It is a portable, easy to install and operated by a single weaver especially female member of the community. This traditional handloom has many components that have its significant functionality wherein a network of threads are managed for weaving. The following are the components of traditional loom of Apatani community:

1. *Potin*: It is a round bamboo pole of suitable length (length depends on the width of the handloom product) which are used as a warp beam and held high with hooks.
2. *Lomi*: It is a small diameter rod of suitable length which use as extra warp beam to detect the error in the interlocked warp and employ different take-up rate or tension during weaving.
3. *Lobu*: It is a medium diameter bamboo stick of suitable length which serves as a lease rod in weaving.

4. *Nee akho*: It is a small diameter round bamboo stick of suitable length which is served as a heald stick to regulate the threads for weaving.
5. *Tapii/tappu*: It is a wooden plane plank of suitable length and breadth with thinner edge on one side and thicker edge another side. It helps to tighten and set the gaping in between the threads.
6. *Guchi*: It is a medium size wooden cuboidal beam of suitable length with depression at both ends to tie the weaving back strap belt. It is used as a cloth beam as shown in Fig. 1
7. *Lokho*: It is a thin bamboo stick where the threads are rolled and used as a Throw Shuttle.
8. *Shey*: It is a back strap belt made up of either bamboo or clothes or even leather which passes across the weaver back. This belt helps to create the necessary tension in loom whenever weaver stretches his/her legs against the footrest.

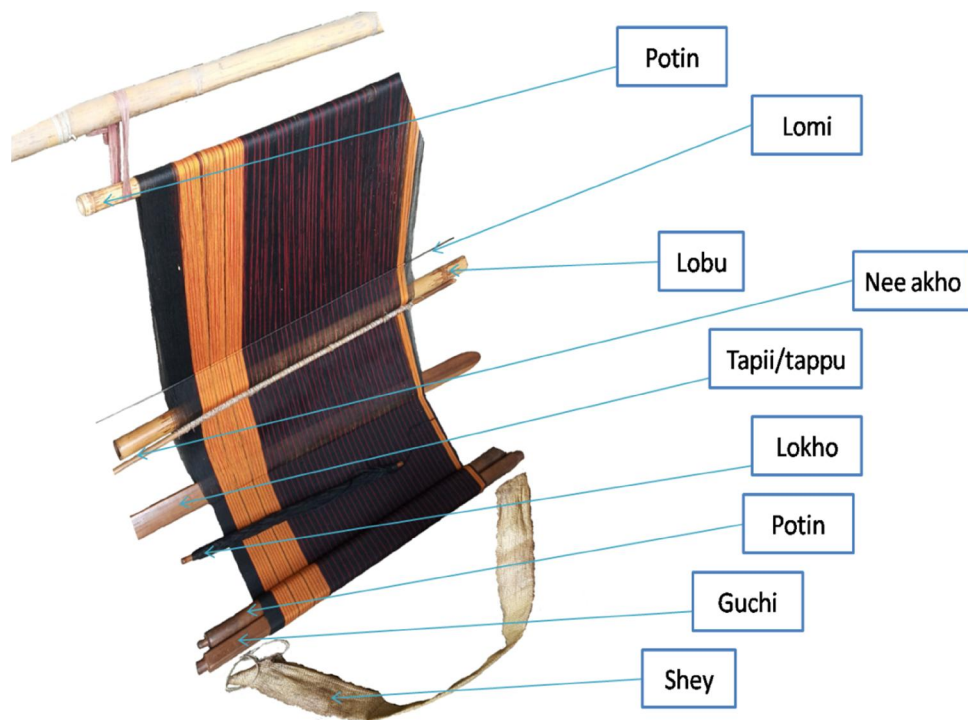


Fig. 1: Showing components of Apatani traditional handloom 'Chichin'

Although the use of modern handlooms is popular among the weavers especially in both privately owned small scale industry and semi-govt./govt. cottage industry for large scale production of handloom products however traditional handlooms are still in use. This technique is used to prepare traditional attire with complex motifs designs that cannot be prepared using modern handloom

techniques. The traditional handloom has been practice d in Apatani tribe since many generation and used especially to weave clothes for their daily uses because of its high durability and fine finishing.



Fig. 2: A- Jacquard loom; B- Loin loom (Chichin); C- Flying shuttle loom

Based on primary survey, it was observed that most of the weavers are between 30 to 50 age groups and most of them are practicing at sustenance level. The average number of weaver per village was 8.75 (Table 1).

Table 1: Number of people involved in weaving from the selected villages of Ziro circle.

Sl. no.	Name of villages	Number of weavers
1	Bulla	9
2	Hija	8
3	Hong	7

4	Lempia	11
	<b>Total</b>	<b>35</b>
	<b>Average no. of weaver per village</b>	<b>8.75</b>

## Documentation of handloom products of Apatani community:

Traditionally, Apatani tribe weave various male and female attires. They have separate designed clothes for priest locally called *Nyibun* and separate for common people. In earlier days, motifs used in male clothes were not allowed for preparing lower garments of female. However, nowadays this custom is not strictly followed. Instead, they are doing more experiments by combing different motifs in their traditional attires.

Table 2: List of attires used in Apatani community:

<b>1. For priest</b>		
<b>Sl. no.</b>	<b>Local name</b>	<b>Clothes type</b>
1.1	Jilan pulye	Shawl
1.2	Jikhe tarii	Coat/jacket
1.3	Abyo	Head cover ( a piece of clothes)
1.4	Jig jiro	Shawl
<b>2. For male</b>		
2.1	Jikhe Pulye	Shawl
2.2	Pyamin Pulye	Shawl
2.3	Misan Pulye	Shawl
2.4	Jikhe tarii	Coat/shirt

2.5	Jig Jiro	Shawl
<b>3. For women</b>		
3.1	Supun tarii	Shirt
3.2	Bilan abi	Skirt (Knee length)
3.3	Niji abi	Skirt (Knee length)
3.4	Kentey abi	Skirt (Knee length)
3.5	Hatey abi	Skirt (Knee length)
3.6	Pisa lenda gale	Skirt (Full length)
3.7	Nihu abi	Skirt (Knee length)
3.8	Chinyu abi	Skirt (Knee length)
3.9	Bisir abi	Skirt (Knee length)

Table 3: List of most commonly weave handloom products of Apatani community:

S/No.	Local name	Description	Significance
1	Jikhe Tarii	It is a coat or jacket in black colour decoration with white lozenge shape designs with fringes at the bottom.	It is mainly worn during festival such as Murung, Myoko and Dree. In earlier days, this attire was allowed to worn by the priest.
2	Supun Tarii	It is a sleeveless white shirt or jacket with fringes at the bottom, mainly made with intricate design (locally called Pinga) at the back.	It is the main upper garment of the female folk and generally worn during festival like Dree, Myoko and Murung.
3	Pyamin Pulye	It is a fringe shawl with three black and orange strips with one at the middle and two at sides.	It is mainly worn during religious ceremony and also traditionally gifted to the groom during marriage ceremony and even during <i>Mabo inchi</i> (a ceremony organized to strengthen the groom and bride families



			relation)
4	Jig Jiro	It is a fringe shawl with dark and blue in colour with yellow strips.	It is traditionally wear by the priest during festivals and nowadays it is also gifted to the elderly people of the community.
5	Jilan Pulye	It is a fringe shawl with intricate motifs (locally known as <i>Jilan</i> )	It is the most expensive piece of attire for priest and generally wear on auspicious rituals performed during festivals like Myoko, Murung etc.
6	Bilan Abi	It is a skirt made of combination of three vertical band viz., white, red and blue.	It is worn during Myoko, Murung & Dree festival.
7	Chinyu Abi	It is a skirt made of combination of two vertical band (Black and white).	It is mainly worn by elderly women during Dree festival celebration.
8	Pisa Lenda	It is a long skirt red or blue in colour with highly decorated designs.	It is worn by women in normal days. Traditionally used to wear by young and unmarried girls.



Fig. 3: Handloom products of Apatani tribe; A- Jilan pulye; B- Pymin pulye; C- Jig Jiro; D- Pisa lenda gale; E- Jikhe tarii; F- Supun Tarii; G- Bilan abi; H- Chinyu abi



Fig. 4: A- Apatani woman in kentye abi; B- Apatani man wearing Jig Jiro

## Motifs used in Apatani handloom products

In the study, it was found that there are mainly two major designs traditionally used by the weavers of Apatani community. These two designs are combined with various other minor designs that gives intricate motifs and used in different traditional clothes of Apatani tribe (Table 4). These major designs are known to be inspired by the structure found in animals such as snake and peacock as per some informers.

Jilang is a complex intricate designs which comprises of four colours namely red, orange, white & black in different combination & pattern and used in Jilan pulye, Supun tarii, & Jilan tarii (Fig. 5). Jikhe is consists of numerous white lozenge shape designs and used in Jikhe tarii and Jikhe pulye (Fig. 5).



Fig. 5: Motifs- A-Jilang; B- Jikhe

## Cost and benefits of handloom products

The cost and benefits analysis of handloom products were done in Govt. and NGO operated craft centres in the markets of Hapoli, Lower Subansiri district. It was found that the price of the handloom products varied from market to market and there is no fixed market price of any handloom products (Table 4). The producer and seller of handloom products fixed their price based on the quality, material used, number of designs, production cost and type of loom used.

Table 4: Cost of production of handloom products.

Handloom products/ items	Raw material	Cost of raw material per kg (in Rs.)	Quantity of raw material require for weaving one piece (in gram)	Length of clothes in metre	No. of days taken for weaving per product		Labour cost in Rs. (approx.)		Total expenses range per piece (in approx. )	
					Traditional handloom (TH)	Modern handloom (MH)	Per metre	Per piece	TH	MH
Jilan pulye (original)	1 ply cotton	500-600	400-500	1.5-1.75	25- 30	–	–	10000-15000	10300 - 12525	–
Jikhe pulye	1 ply cotton	500-600	400-500	1.5-1.75	10 - 15	3-4	1100	–	–	1400-1625
Pyamin pulye	1 ply cotton	500-600	400-500	1.5-1.75	7 - 8	2-3	200	–	–	500-725
Jig Jiro	1 ply cotton	500-600	400-500	1.5-1.75	7 - 8	2-3	200	–	–	500-725
Bilan abi	1 ply Cotton	500-600	300-330	1.4-1.5	4-5	1	80	–	–	290-377
Chinyu abi	1 ply Cotton yam	500-600	300-330	1.4-1.5	4-5	1	80	–	–	290-377
Pisa lenda gale	1 ply Cotton yam	500-600	350-400	1.4-1.5	10-15	4-5	1300	–	–	1545-1660

Table 5: Production and benefits in handloom product manufacturing

Sl. no.	Handloom products/items	Total no. of products produce per month		Price range of products in market		Range of benefits earned by weavers per cloth (Market price – total expenses) in approx.	
		TH	MH	TH	MH	TH	MH
1	Jilan pulye (original)	1	-	15000-25000	–	5000-10000	-
2	Jikhe pulye	2-3	8-10	-	4000-5000	–	2600-3375

3	Pyamin pulye	3-4	10-15	2000-2500	1000-1500	-	500-775
4	Jig Jiro	3-4	10-15	-	1000-1500	-	500-775
5	Bilan abi	6-8	25-30	-	800-1000	-	510-623
6	Chinyu abi	6-8	25-30	-	700-900	-	410-523
7	Pisa lenda gale	2-3	6-8	5000-6000	3000-3500	-	1455-1840

TH-Traditional handloom; MH-Modern handloom

During the market survey, it was found that *Jilan pulye* was most expensive handloom product that ranged between Rs. 15,000 to 25,000 amongst other handloom products and also the most profitable handloom product as compared to other handloom products (Table 6).

## ***Byopa*: A traditional headgear of Nyishi tribe from Arunachal Pradesh (India) and its relevance to Geographical Indication**

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### **Abstract**

*Byopa*, a traditional headgear of Nyishi tribe is considered as one of the most important cultural attire. It is generally worn during important socio-cultural occasions to symbolise the identity of the tribe. It is prepared from locally available materials viz., *Calamus acanthospathus*, *C. erectus*, *Gmelina arborea*, *Alnus nepalensis* etc. using handmade tools. *Byopa* may be considered for registration under Geographical Indication as it fulfilled all the prerequisite criteria of 'Geographical Indication of Goods (Registration and Protection) Act 1999'. Based on this act, this product belonged to Class 25 (Headgear) and the proof of origin of headgear was assured on the basis of secondary literature that proved that this traditional attire belonged to Nyishi tribe to represent their cultural identity. Uniqueness of the headgear with the use of wooden hornbill beak and other accessories indicate their unique intellectual property. The product was easily available and sold in the local markets due to its high demand in cultural practices.

**Key words:** *Byopa*, headgear, GI, Nyishi

### **INTRODUCTION**

Nyishi tribe is one of the indigenous tribe of Arunachal Pradesh and who lives in close harmony with nature. They are dependent upon natural resources for all important aspects of their life such as food, shelter, medicine, magico-religious practices, socio-cultural practices etc. Of these, cultural attire made from the available forest resources plays an important part in their socio-cultural practices since many generations. *Byopa*, is one of the handmade cultural attire and is used as a traditional headgear. Earlier, it was traditionally worn by Priest (*Nyub*) during magico-religious practices and also by other members in their day to day life. However, nowadays this cultural attire is worn occasionally, especially during auspicious occasions like celebration of *Nyishi day*, *Nyokum* festivals and marriage celebration (Solanki *et al.* 2004; Kumar & Riba 2015).

Traditionally, hornbill beak of *Buceros bicornis*, *Rhyticeros undulatus* and *Aceros nipalensis* were utilised by Nyishi tribe for the preparation of traditional headgear (Anonymous 2012; Krishna *et al.* 2012; Kumar & Riba 2015). These birds were also hunted by other tribes like Idu Mishmis and Adis for their feather and skull in decoration purposes (Krishna *et al.* 2012).

Nyishi tribe also utilise different parts of other wild animals like *Buceros bicornis*, *Selenarctos thibetanus*, *Macaca assamensis*, *M. mulatta* etc. for decorating headgear and as symbolism. Now-a-days, original hornbill beak has been replaced by fibre glass and wooden materials due to conservation initiative taken by various NGOs like Wildlife Trust of India (WTI), WWF-India and NCF (Anonymous 2001; Dhar 2003; Anonymous 2012; Krishna

*et al.* 2012; Basu 2016; Rahman 2016). This initiative is further strengthened in customary law by village council of Nyishi tribe with imposing fine for killing the hornbill birds (Rahman 2016). It is revealed that 60% of local people preferred artificial hornbill beak than original one. Again, 68% of local people prefer hornbill beak made of wood over plastic material (Kumar & Riba 2015). The traditional headgears of the tribe have also higher market demand due to its cultural importance (Basu 2016). These are sold in various markets for their traditional importance, cultural identity, decorative and ethical values.

The protection of traditional knowledge especially their process and products is done through intellectual property right (IPR) that conforms Trade Related Aspects of Intellectual Property Rights of World Trade Organisation.

One of the IPR tools that protect the TKS and its product is by registration under provision of 'Geographical Indication of Goods (Registration and Protection) Act 1999'. In India, so far about 301 different products like agricultural, handicraft, textile products etc. are registered. The present study is an attempt to address the feasibility of *Byopa*, a traditional headgear as first GI product from Nyishi tribe of Arunachal Pradesh.

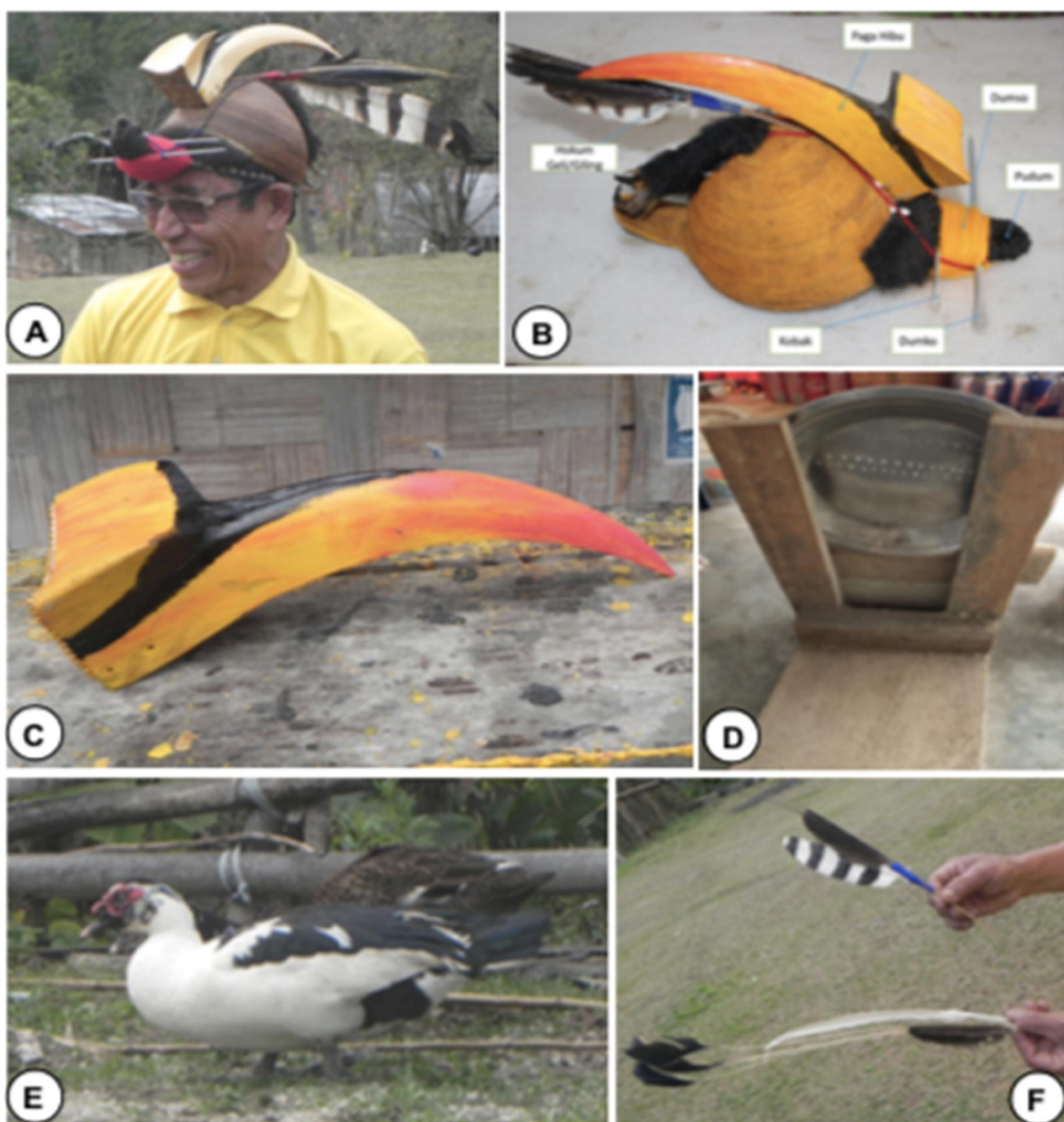
## MATERIALS AND METHODS

### Study site and local community

The study site was located in Papumpare district of Arunachal Pradesh. Its geographical area is 2,875 sq km with a total population of 1,76,385 and is located between 26°55' N and 28°40' N latitudes and between 92°40' E and 94°21' E longitudes. Two main rivers i.e., *Papum* and *Pare* are the basis for naming Papumpare district. The study was conducted in Sagalee and Laporiang circle of Papumpare district due to availability of artisans.



Figure 1. Location map of study area



**PLATE - I:** A. Nyishi man wearing original *Byopa*; B. Description of *Byopa*; C. Wooden hornbill beak; D. *Oso sennon*; E. Domesticated Muscovy duck (*Cairina moschata domestica*); F. Feather of Muscovy duck as a substitute of hornbill feather and other birds

**Tribe:** Nyishi tribe is one of the dominant tribes of Arunachal Pradesh with a population of 249,824 (Census 2011) and is dominant in five districts of Arunachal Pradesh viz., East Kameng, Papum Pare, Lower Subansiri, Kurung Kumey, and Upper Subansiri and settled in some districts of Assam viz., Lakhimpur and Sonitpur. The Nyishi people belong to Paleo-Mongoloid stock and speak the Sino-Tibetan family language. The name 'Nyishi' is derived from two word *Nyi* – means man or human race and *Ishi* – means hills or highland. Nyokum is the major festival of this tribe and is celebrated in the month of February.



The study was conducted during April 2018 to February 2019 through the structured questionnaire in selected villages of Papumpare districts. Random sampling was adopted to document the importance of the traditional attire from artisans involved in preparation of traditional headgear. The feasibility of *Byopa* for GI registration was done by comparing the criteria provided in Geographical Indication of Goods (Registration and Protection) Act 1999.

## RESULTS AND DISCUSSION

### Traditional method of headgear production

*Byopa*, a traditional headgear of Nyishi tribe, is prepared by local artisans. The local name of head gear is derived from its main frame locally called *Byopa* which looks like a dome shaped cap with 20 cm diameter and with an extended part at posterior side (PLATE II). Now-a-days, they prepare headgear from locally available materials without using wildlife products due to conservation initiative done by NGOs and Forest Department. Most of the artisans involved in the making headgear are males. They utilised cane species like *Calamus acanthospathus* and *C. erectus* locally called *Oso* for this purpose. These species were used due to their strong and flexible stem which bend easily without breaking. The canes were seasoned through solar insolation and were splitted into two halves which were further split into 3 mm and 1 – 2 mm diameter sizes locally known as *Pyalo* and *Somo* respectively. The length of the *Pyalo* and *Somo* varies depending on their utility and were prepared from traditional tools namely traditional knife (*Dao*) and *Oso sennan* (a circular steel plate with smaller holes) (PLATE II). *Oso sennan* consisted of two main parts i.e., circular steel plate with numerous smaller holes fixed in a wooden frame used to prepare *Pyalo* and *Somo*.

**Table 1.** Details of parts of traditional headgear *Byopa* and their sources

Sl. no.	Local Name	Material used	Description
1	<i>Podum</i>	<i>Calamus acanthospathus</i> , <i>C. erectus</i>	Traditional cap made of cane
2	<i>Paga Hlu</i>	Wood ( <i>Gmelina arborea</i> , <i>Alnus nepalensis</i> )	The wooden hornbill beak fixed on the front portion of traditional cap
3	<i>Lance Gulu</i> <i>Holum</i> <i>giling' gell</i>	Nowadays, feather of domesticated muscovy duck <i>Cairina moschata domestica</i> are used	Feather fixed along with hornbill beak towards posterior side
5	<i>Dow</i> / <i>Podum</i>	Artificial hair	It is fixed at the rear part of headgear. Traditionally, in earlier days, male tribe used to keep long hairs and tied at the rear portion. However, nowadays it is replaced with artificial hair
6	<i>Dumso</i>	Yarn	It is used to wrap the artificial hair ( <i>Dow</i> ). Yellow, green and red yarns are used for wrapping. Yarn wrapped on hairs is locally called as <i>Dumso</i>
7	<i>Dumko</i> / <i>Dumkyo</i>	Aluminium/ bamboo	It is a needle like structure fixed on <i>Dumso</i> and used to tie hair at the forehead
8	<i>Kobak</i>	Aluminium/ bamboo	It is similar to <i>Dumko</i> however its length is relatively smaller. It is generally fixed along with <i>Dumko</i> on <i>Dumso</i> .

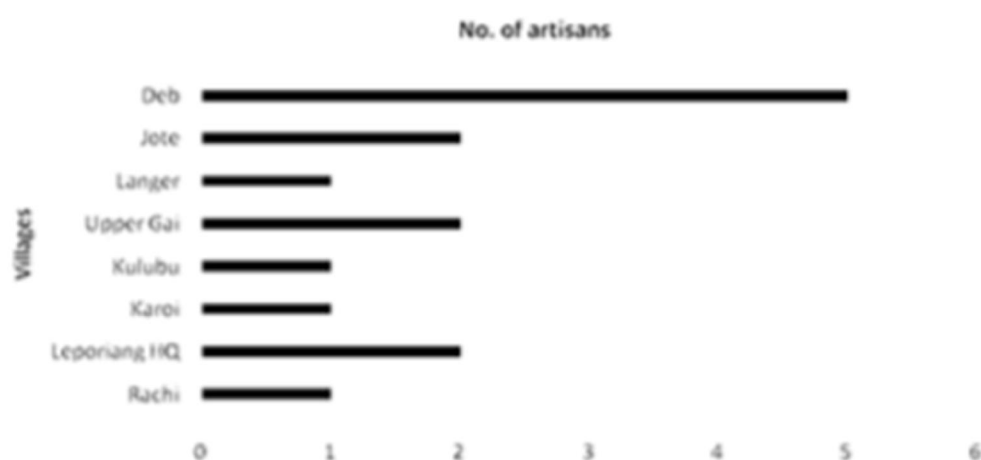
*Pyalo* and *Somo* were the main components for preparing traditional headgear. Initially *Somos* were arranged vertically and *Pyalo* were weaved horizontally around *Somo* in perpendicular direction. The weaving of *Somo* were generally done with a needle, locally known as *Silo* or *Piss*. During weaving, relatively higher diameter of *Pyalo* was kept at the base of the cap and its diameter gradually decreased from base to the top to give the main frame of a dome shape. After completion, weaved headgear are painted and dried under sun followed by fixing accessories of traditional headgear with wooden hornbill beak, feather of domesticated duck etc. (Table 1; PLATE I).



**PLATE - II:** A. Dried *oso* (*Calamus* spp.); B. splitting of *Oso* with help of *Dao*; C & D. conversion of splitted *oso* into *pyalo*; E. *Pyalo*; F- *Somo*; G & H. weaving of *somo* over *pyalo* using *silo*; I. Main frame.

The present study revealed that number of artisans involved in making headgear was only 15 in 5 villages under study (Figure 2)

The present study revealed that maximum number of artisans involved in making headgear varied from 1 – 5 per village (Figure 2). It was observed that the number of making wooden hornbill beak per month varied from 40 to 300 depending on the involvement of an artisans. About 4 to 5 days were required to prepare a complete headgear (*Byopa*) and an artisan can prepare 3 to 4 *Byopa* per month.



**Figure 2.** Number of artisans from eight villages involved in the preparation of headgear

#### Relevance of GI in *Byopa*:

GI play an important role to secure the identity of the product and provides legal protection and authenticity to it. GI also protects the produce against counterfeiting and unfair competition. The GI registration of *Byopa* will help to protect the cultural identity and IKS of Nyishi tribe. The present study shows that *Byopa* may be as considered one of the potential products for registration for GI as it fulfills the criteria given under Geographical Indication of Goods (Registration and Protection) Act 1999 as given below (Table 2).

**Table 2.** Conditions of GI satisfies by *Byopa* of Nyishi tribe

Particular	Details
<i>Class of goods</i>	Based on classification of goods under Class 25 (Headgear) of fourth schedule
<i>Proof of origin</i>	The place of its origin is Arunachal Pradesh and worn by Nyishi tribe. It is also considered as cultural identity of the tribe (Anonymous 2001; Dhar 2003; Anonymous 2012; Krishna et al. 2012; Basu 2016; Rahman 2016). The main reason of using beak of horn bill is to symbolize Nyishi identity, manhood and vigourness (Anonymous 2001; Mitra 2009; Anonymous 2019)
<i>Uniqueness</i>	<i>Byopa</i> is traditional headgear of Nyishi tribe and is a unique cultural attire with wooden hornbill beak (Paga hibu), Podum, Lunee Gulu, Hokum gling/geli, Pudum, Dumso, Dumko and Kobak
<i>Market demand</i>	It is easily available in local markets and is sold both as traditional attire and handicraft items. The average market price of headgear in local market is Rs. 2500 to 5000
<i>Association of artisans</i>	No association of artisans was found which is one of the gap area and needs to be addressed during registration of <i>Byopa</i> under Geographical Indication.

#### Conclusions

*Byopa* is an important cultural attire of Nyishi tribe of Arunachal Pradesh and is worn during special socio-cultural occasions. *Byopa* is one of potential cultural attires and need to be protected through Geographical Indication (GI) for the welfare of the artisans and local people. The headgear fulfils most of the criteria of Geographical Indication of Goods (Registration and Protection) Act 1999 and comes under class 25 of fourth schedule. The

proof of origin and its use by a particular tribe was based on secondary literature. There was no association of artisans for this products an urgent need to make association before registration of *Byopi* under GI. This product is unique in NE region as hornbill beak and other accessories are not used in headgear in similar fashion by other tribes. It has high demand in market due to its cultural and decorative values. The GI tag on *Byopa* may help to protect the cultural identity and brand value.

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