



## Traditional handloom practices of *Nyishi* tribe of Arunachal Pradesh, Eastern Himalaya

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The documentation of traditional handloom practices of *Nyishi* tribe and their cultural attire was done in Papum pare district of Arunachal Pradesh wherein 7 selected villages were surveyed during May 2018 to February 2019 through random sampling with semi-structured questionnaire. *Rubung Ruekio*, a traditional loin loom of *Nyishi* tribe is prepared from locally available resources, viz., *Bambusa tulda*, *B. pallida*, *Dendrocalamus hamiltonii*, *Gmelina arborea*, *Michelia species* and *Terminalia myriocarpa*. Most of the weavers were female and weaved culturally important traditional dresses such as *Pomo gale*, *Dumping gale*, *Jekum/Name-acham gale*, *Jinjab gale*, *Juhu/Junghang gale* and *Luch/lungch gale* which are worn especially during auspicious occasions. Of these, *Jekum gale*, *Pomo gale* and *Dumping gale* culturally significant. The market price of gale varied tremendously depending on type of raw material and type of handloom used in the production.

**Keywords:** Gale, *Nyishi*, Handloom

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Traditional handloom is an old practice of indigenous community and has been used since time immemorial. Traditionally, loin loom is used for weaving for many centuries. However, due to commercialization of handloom products, fly shuttle loom and jacquard loom are introduced nowadays as these are more efficient and relatively takes less time. At present, there are 4,04,102 loin looms in India that constitute only 15% of total number of looms<sup>1</sup>. There are about 30,53,691 population involved with handloom industry wherein 72.3% are female<sup>1</sup>. Cotton, *eri* silk and wool are common yarn used in traditional handloom<sup>2-4</sup>.

In India, there are about 707 schedule tribes and 145 tribes in North East India. Each tribe has its own cultural identity and traditional dresses<sup>5-7</sup>. Weaving is considered as an integral part of culture and its knowledge has been passed from one generation to another<sup>3-4</sup>. In India, majority of handloom artisans are reported from North East India, viz., Arunachal Pradesh, Assam, Manipur, Mizoram, Meghalaya, Nagaland, Tripura and Sikkim states constituting 61% of the total handloom workers of India<sup>7</sup>. Moreover,

17.8% of total handloom workers belong to Schedule Tribe in India<sup>1</sup>. Most of them have diverse cultural diversity and also possess unique cultural attires such as shawl, summer clothes, head gear clothes, sleeve less jacket, upper garment, lower garment, etc. with unique motifs, viz., floral, animal, abstract, etc.<sup>2-4,9-12</sup>.

Traditional handloom such as loin loom and throw shuttle loom are an integral part of culture in Assam and Manipur and it becomes an integral part of household<sup>13-14</sup>. Embroidery is an art and prevalent throughout India in various forms, viz., *Aari*, *Kantha*, *Pakko*, *Yoke* etc. and needle is commonly used to prepare motifs on various cultural outfits<sup>15-19</sup>. The weaving of silk saree uses various traditional techniques such as *petni*, *kondi* and *reku* to prepare fabric for manufacturing border, body and *pallau*<sup>20</sup>.

Nowadays natural dye are in high demand in handloom products. The use of *Batik* on cotton yarn is popular wherein *Laccifer lacca*, *Acacia catechu*, *Terminalia chebula*, *Rubia cordifolia* etc. are used for painting on handloom product<sup>21,22</sup>. The use of *Camellia sinensis* var *assamica* and *R. cordifolia* as dye have been reported in handloom industries<sup>23-24</sup>.

Arunachal Pradesh is one of the state of Northeast region of India and is popular worldwide for its

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diverse biological diversity and ethnicity. The state shares international border of 1,628 km with Bhutan in west, China (North and Northeast) and Myanmar (East). There are around 26 major tribes in the state and have diverse traditional attires indicating the unique culture of each tribe. The unique motifs used in cultural outfits distinguish their social status, gender and ethnicity<sup>1</sup>. There are about 99,450 different types of looms in this state of which 61.99% are loin looms, 4.12% (frame loom with doobby and jacquard) and 27.69% (pit looms with jacquard and other pit loom) and 6.18% (other types of looms)<sup>1</sup>.

*Nyishi* tribe, one of major tribes of Arunachal Pradesh is distributed in Papum pare, Kurung Kumey, East Kameng, Kra Daadi, lower Subansiri and Kamle districts<sup>5</sup>. The women folk are skilled in weaving traditional attires which are especially worn during auspicious occasions like festival (*Nyokum*) and marriages<sup>25-26</sup>. The male member of the tribe are skilled in handicraft art and prepare handicraft products such as basket, headgear (*Byopa*), rope, etc. Of these, traditional headgear (*Byopa*) is used during

important socio-cultural events and it also symbolize identity of the tribe<sup>26</sup>.

In Arunachal Pradesh, scientific study on traditional handloom practice is reported from Adi tribe<sup>2</sup>. The loin loom (*Gekong galong*) is traditionally used by women folk to prepare *Adi* bag, shawl, *gale*, *galuk*, *badu* etc<sup>2</sup>. The proper documentation of traditional handloom practice is need of the hour in protecting the intellectual property right (IPR) through Geographical indication (GI) and also in preserving the cultural practices of tribe for future generation reference. With these perspectives, the main aim of the study is to document the traditional handloom practices, handloom products like *gale* and unique motif designs.

### Study Sites

The present study was carried out in 7 villages of Papum pare district namely *Chimpu*, *Chiputa*, *Midpu-II*, *Rono*, *Sengri*, *Upper Dobum* and *Yupia* (Fig. 1). The district is situated in 26°55' and 28°40' North

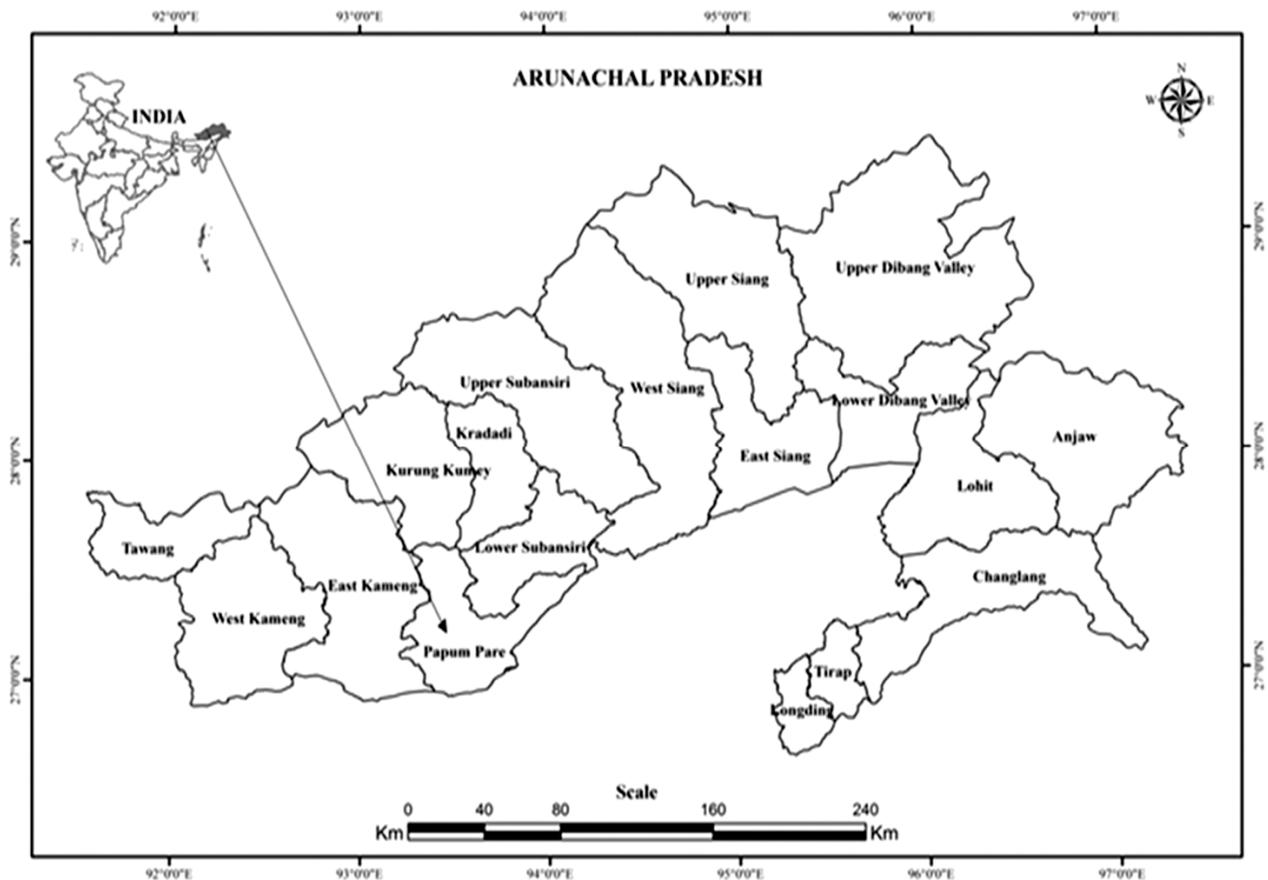


Fig. 1 — Map of study site.

latitude to 92°40' and 94°21' East longitude. The geographical area of the Papum pare district is 3,462 sq. km. It is bounded by Kra Daadi district (North), Lower Subansiri district (East), East Kameng district (West) and Assam (South). The *Nyishi* tribe is the dominant tribe of the selected villages.

### Methodology

The study was conducted from May 2018 to February 2019 wherein a semi-structured questionnaire was designed for collecting handloom related information through random sampling. Personal interviews were conducted with the local weavers at household level, private cottage industries, government cottage industries, showrooms, etc. The data were collected from 25 informants from selected villages. Most of the informants were from 20-30 years and 41-50 years. The Prior Informed Consent (PIC) was taken from informants for the present study.

### Results and discussion

#### *Traditional handloom practices of Nyishi tribe*

The traditional handloom of *Nyishi* tribe is locally known as *Rubung Ruekio*. It is a type of loin loom operated by a single weaver and considered as traditional practice of *Nyishi* tribe. This traditional handloom has many components placed in different positions based on its function during weaving

(Table 1, Fig. 2 & Fig. 3). Similar studies are reported from weavers of *Karbi* and *Biate* tribes of Meghalaya where traditional fly shuttle wooden looms (*Pe-therang*) and back strap looms are considered as traditional handlooms<sup>2</sup>. In Manipur, loin loom (*KwangIyong*) is considered as traditional handloom practices however throw shuttle loom and fly shuttle loom are used nowadays<sup>9,14,27</sup>. In Assam, throw shuttle loom and loin loom are exclusively used however fly shuttle loom is used nowadays due to some difficulty faced in throw shuttle loom<sup>13</sup>.

The local resources are used to prepare traditional handloom by other tribes. *Mesua ferrea*, *Dendrocalamus giganteus*, *Gmelina arborea*, *Mallotus phillippensis*, *Quercus serrata*, *Pterygota alata* etc. are used to make handlooms by *Kom* tribe of Manipur<sup>9</sup>. *B. spp.*, *Terminalia chebula* and *Corchorus capsularis* etc. are the main local bioresources for handlooms by *Adi* tribe<sup>2</sup>. The present study is in agreement with the findings of these workers.

Women weave different types of traditional attires such as jacket, *muffler* (*Tona*), *gale* etc. Among these, *Gale* is one of the most important cultural attire of *Nyishi*. It is a traditional dress worn by women especially as lower garment. It is generally made of *Eri* silk, *Muga* silk, wool, cotton and even beads. They use different motifs (design) such as *Bump*, *Dumping*, *Jinjab* etc. with different symbols. These

Table 1 — Different components of *Rubung Ruekio*.

Sl. no.	Handloom parts	Description	Plants used
1	<i>Ruekio</i>	It is a pair of round wooden stick of suitable length (Its length depend on the size of the product). It is used as warp beam which is held high with support or with hooks.	<i>Gmelina arborea</i> .
2.	<i>Neni-lomi</i>	It is a small diameter bamboo stick of suitable length either round or flat shape which are used as an extra warp beam to detect the error in the interlocked warp and employed different take up rate or tension during weaving.	<i>Dendrocalamus hamiltonii</i> , <i>B. tulda</i> , <i>B. pallida</i> etc.
3	<i>Rubung</i>	It is a medium diameter bamboo stick of suitable length which is served as a lease rod in weaving.	<i>Dendrocalamus hamiltonii</i> , <i>B. tulda</i> , <i>B. pallida</i> etc.
4	<i>Ninisankyo</i>	It is a small diameter round bamboo stick of suitable length which is used to regulate the threads for weaving.	<i>Dendrocalamus hamiltonii</i> , <i>B. tulda</i> , <i>B. pallida</i> etc.
5	<i>Taap</i>	It is a wooden plank of suitable length and breadth with one edge thinner and other thicker. It is help to tighten and set the gaping in between the threads.	<i>T. myriocarpa</i> , <i>Gmelina arborea</i> , <i>Michelia</i> sp. etc.
6	<i>Putul</i>	It is a flat bamboo stick of suitable length and are used to keep the woven cloth stretched horizontally to avoid folding.	<i>Dendrocalamus hamiltonii</i> , <i>B. tulda</i> , <i>B. pallida</i> etc.
7	<i>Gagar</i>	It is a medium size wooden cuboidal beam of suitable length with depression at both ends. It is used to tie the weaving back strap belt (Fig. 3).	<i>Gmelina arborea</i> .
8	<i>Taping sankyo</i>	It is a thin bamboo stick where the threads are rolled and used as a throw shuttle.	<i>Dendrocalamus hamiltonii</i> , <i>B. tulda</i> , <i>B. pallida</i> etc.
9	<i>Gaetah</i>	It is a back strap belt made up of bamboo, clothes and leather, which are kept around the weaver back. This belt helps to create the necessary tension in loom by stretching legs against the foot rest.	<i>Dendrocalamus hamiltonii</i> , <i>B. tulda</i> , <i>B. pallida</i> etc.



Fig. 2 (a) — Top view of *Rubung ruekia*, (b) Different components of *Rubung ruekia*

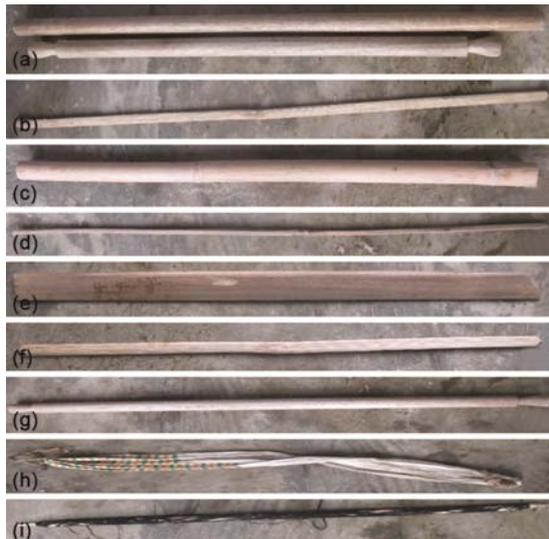


Fig. 3 (a) *Ruekio*, (b) *Nini-lomi*, (c) *Rubung*, (d) *Nini-sankyo*, (e) *Taap*, (f) *Putul*, (g) *Gaggar*, (h) *Gaetah*, (i) *Taping sankyo*

motifs are designed based on the shape of objects such as mountains, ornaments, cucumber seeds etc. (Table 2). Each symbol represents cultural significance with different color combinations (Table 2 & Fig. 4)

In Meghalaya, *Karbi* and *Baite* tribes also weave female handloom product similar to *gale* such as *Pini-Langtdong & Pini* and *Puanbum*, respectively. The common motifs used in the handloom products were *Jambili Athan*, *Vo Alo*, *Pipli*, *Betoh*, *Mir* and *Diamond*<sup>3</sup>. *Kom* tribe of Manipur weave lower garment of female like *gale* called *Pumbeng* and use animal motifs such as tiger and python pattern<sup>9</sup>. Whereas *Meetei* community generally weave lungi (*Khudei*), scarf, bed sheet, shawl, etc. and use animal motifs (*Lamthang & Lindomayek*), insects motifs (*Shami-lami phi & Ningkham Khoi*), bird motif (*Wahong*), floral motif (*Kundo & Attar gulab*)<sup>14,27</sup>. In Meghalaya, *Karbi* tribe uses a generic motif called *Jambili Athan* in the traditional dress which represents 5 clans of the tribe symbolized by a rod with 5 branches<sup>3-4</sup>.

The nomenclature of the *Nyishi gales* are based on the type of motifs woven on the *gale*. Women commonly weave two types of *gales* – (a) *gale* with single motif like *Pomo gale*, *Dumping gale*, *Juhu gale*, *Luch gale* etc. and *gale* with multiple motifs such as *Muko-khum*, *Luch*, *Putu*, *Dumping*, *Juhu* etc. In *Jekum gale* four motifs are used namely *Muko-Khum*, *Luch*, *Putu* and *Pomo*. *Jekum gale* is created by the All *Nyishi* women association locally called *Name-acham*. It is a common *gale* designed for all *Nyishi* tribes residing in different districts of Arunachal Pradesh (Fig. 4 & Fig. 5). This *gale* is the amalgamation of cultural and traditional values and also symbolizes the unity of *Nyishi* tribe. *Pomo gale* is the oldest *gale* of *Nyishi* tribe and has higher traditional value. *Dumping gale* is specifically wear for performing a popular local dance called *Rikampada* in local festival *Nyokum*.

Traditionally, motifs are encrypted on the *gale* simultaneously during weaving. However, in some cases, motifs are embroidery on the plane *gale* with needles (Fig. 6).

**Market survey of gales**

The price of *gale* varied from Rs. 1000 to 60,000 in local market and its price mostly depends on various factors such as type of raw material, number of motifs and type of loom (Table 3). Among all *gale*, *Jekum gale* is found to be most expensive with market prices from Rs. 8000 to 60,000. The *gale* is woven from loin loom using *eri* silk and takes 20 to 25 days to complete. Nowadays, flying shuttle loom and jacquard loom are utilized due to its high efficiency and can weave *gale*

Table 2 — Different types of motifs used in handloom products.

Sl. no.	Motif	Material used	Description	Uses
1	<i>Bump</i>	Eri, cotton, wool, muga.	It is a long strip of numerous x-shaped symbol found within two parallel line. Sometime it comes with alternately arranged with diamond and x-shaped symbols. This motif is considered one of the oldest motifs and has been used since time immemorial.	It is used for preparing <i>Parhej</i> (shawl) and <i>Gale</i> in border.
2	<i>Dumping</i>	Cotton, wool, eri, muga.	It is a flower-like shape mostly with two colours either black or red or both. This motif is the imitation of the hairpin ( <i>Dumping</i> ) wear by the <i>Nyishi</i> women.	It is used for preparing <i>Dumping gale</i> .
3	<i>Jinjab</i>	Cotton, wool, eri, acrylic, muga, colour beads.	This motif is the imitation of ornament ( <i>Jinjab</i> ) wear by the <i>Nyishi</i> women.	It is used for preparing <i>Jinjab gale</i> .
4	<i>Juhu</i>	Cotton, wool, eri, acrylic, muga, colour beads.	It is a bell-shaped motif derived from the ornament of <i>Nyishi</i> tribe.	It is used for making <i>Juhu gale</i> .
5	<i>Luch</i>	Cotton, wool, eri, acrylic, muga, colour beads.	It is more or less circular in shape multiple colours. This motif is originates from Papum pare district.	It is used for preparing <i>Luch gale</i> and <i>Jekum gale</i> .
6	<i>Madoli/Putu/ Digla</i>	Cotton, wool, eri, acrylic, muga.	It is a diamond shape motif with various colour combinations. This motif represents the mountain locally called <i>Putu</i> . This design is created by the hill <i>Miri</i> tribe of Kamle district of Arunachal Pradesh.	It is used for preparing <i>Jekum gale</i> .
7	<i>Moku-khum</i>	Cotton, wool, eri, acrylic, muga.	It has two parallel line strips with dot shape structure at the middle. This motif is derived from the cucumber and dots represent seeds. It is originated from east Kameng district.	It is used for preparing <i>Jekum gale</i> .
8	<i>Pomo</i>	Cotton, wool, eri, acrylic, muga.	It consists of black and white strip motif arranged alternatively. It is originated from east Kurung kumey district.	It is used for preparing <i>pomo gale</i> , <i>Jekum gale</i> , Jacket and Mufflar ( <i>Pomo tona</i> ).
9	<i>Reni/Rayni</i>	Cotton, wool, eri, acrylic, muga, colour beads.	This motif is also an imitation of one of the ornament ( <i>Reni/Rayni</i> ) of the <i>Nyishi</i> tribe.	It is used for preparing <i>Rayni gale</i> .



Fig. 4 — Important motifs: (a) *Juhu*, (b) *Luch*, (c) *Jinjab*, (d) *Dumping*, (e) *Madoli/Putu*, (f) *Mokukhum*, (g) *Bump*, (h) *Pomo*, (i) *Reni/Rayni*



Fig. 5 (a) — *Jekum kochi/Name-acham gale*, (b) *Bump gale*, (c) *Juhu/Junghang gale*, (d) *Luch/Lungch gale*, (e) *Pomo gale*, (f) *Dumping gale*, (g) *Jinjab gale*, (h) *Nyishi women in Jekum gale*



Fig. 6 — a-c. *Nyishi girl embroidering Juhu motifs on gale*

Table 3 — Cost range of different type of *gale* and total time taken in the production.

Sl. no.	Handloom Items	Raw material	Market price (Rs)	Number of Days		
				Flying shuttle loom	Jacquard loom	Loin loom
1	<i>Jekum gale</i>	<i>Eri</i> silk yarn	12,000-15,000	5-7 days	5-7 days	20-25 days
		<i>Muga</i> silk yarn	11,000-14,000	5-7 days	5-7 days	20-25 days
		Woolen yarn	8,000-11,000	5-7 days	5-7 days	20-25 days
		Cotton yarn	8,000-11,000	5-7 days	5-7 days	20-25 days
		Acrylic yarn	8,000-10,000	5-7 days	5-7 days	20-25 days
		<i>Eri</i> yarn and coloured beads	30,000-60,000	7-9 days	7-9 days	25-30 days
2	<i>Luch gale</i>	<i>Eri</i> silk yarn	10,000-15,000	5-7 days	5-7 days	15-25 days
		<i>Muga</i> silk yarn	10,000-12,000	5-7 days	5-7 days	15-25 days
		Woolen yarn	5,000-8,000	5-7 days	5-7 days	15-25 days
		Cotton yarn	5,000-8,000	5-7 days	5-7 days	15-25 days
		Acrylic yarn	4,000-6,000	5-7 days	5-7 days	15-25 days
3	<i>Jinjab gale</i>	<i>Eri</i> silk yarn	10,000-15,000	5-7 days	5-7 days	15-25 days
		<i>Muga</i> silk yarn	10,000-12,000	5-7 days	5-7 days	15-25 days
		Woolen yarn	5,000-8,000	5-7 days	5-7 days	15-25 days
		Cotton yarn	5,000-8,000	5-7 days	5-7 days	15-25 days
		Acrylic yarn	4,000-6,000	5-7 days	5-7 days	15-25 days
4	<i>Juhu gale</i>	<i>Eri</i> silk yarn	10,000-15,000	5-7 days	5-7 days	15-25 days
		<i>Muga</i> silk yarn	10,000-12,000	5-7 days	5-7 days	15-25 days
		Woolen yarn	5,000-8,000	5-7 days	5-7 days	15-25 days
		Cotton yarn	5,000-8,000	5-7 days	5-7 days	15-25 days
		Acrylic yarn	4,000-6,000	5-7 days	5-7 days	15-25 days
5	<i>Plane Pomo gale</i>	<i>Eri</i> silk yarn	3,000-5,000	1-2 days	1-2 days	4-6 days
		<i>Muga</i> silk yarn	2,500-3,000	1-2 days	1-2 days	4-6 days
		Woolen yarn	1,000-2,500	1-2 days	1-2 days	4-6 days
		Cotton yarn	1,000-2,500	1-2 days	1-2 days	4-6 days
		Acrylic yarn	700-800	1-2 days	1-2 days	4-6 days
6	<i>Dumping gale</i>	<i>Eri</i> silk yarn	10,000-15,000	5-7 days	5-7 days	15-20 days
		<i>Muga</i> silk yarn	8,000-12,000	5-7 days	5-7 days	15-20 days
		Woolen yarn	5,000-8,000	5-7 days	5-7 days	15-20 days
		Cotton yarn	5,000-8,000	5-7 days	5-7 days	15-20 days
		Acrylic yarn	2,000-4,000	5-7 days	5-7 days	15-20 days

relatively in less time of 5 to 7 days. However, its price is relatively lower than loin loom because the quality of handloom products prepared from loin loom is considered to be better quality.

### Conclusion

*Rubung Ruekio*, a culturally important handloom of *Nyishi* tribe is made up of locally available resources viz., *B. tulda*, *B. pallida*, *Dendrocalamus hamiltonii*, *Gmelina arborea* and *T. myriocarpa*. Six types of *gales*-*Pomo gale*, *Dumping gale*, *Jekum/Name-acham gale*, *Jinjab gale*, *Juhu/Junghang gale* and *Luch/lungch gale* are weaved by *Nyishi* tribes and used in various socio-cultural occasions. There are

seven important motifs used in female garments, viz., *Bump*, *Dumping*, *Jinjab*, *Juhu*, *Luch*, *Madoli/Putu/Digla* and *Moku-khum*. Among all *gales*, *Jekum gale* is the most expensive and motifs used are distinct which represents place of origin. Thus, *gale* of *Nyishi* tribe may be considered for Geographical Indication (GI) to provide legal protection to their intellectual property because of its origin from specific geographical region and high market demand.

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