FIELD WORK

Department of Geography

J.K.COLLEGE, PURULIA

Project course: Under III years B.A. degree course (Hons) in Geography.

Course code: BGEOCCHS502, Course Title: Research Methodology and Field Work

Title of the project: **Comparative analysis of socio-economic conditions of lac cultivators and lac industrialworkers in Balarampur mouza (J.L no: 46), Balarampur block of Purulia district, West Bengal**

Participated students: Geography Hons V'th Semester students.

Registered Roll No. and name of the participated students

Sl no.	Roll	Number	Name
1	111551	2013045	Abhijit Kaibarta
2	111551	2013001	Abhisek Bauri
3	111551	2013002	Afroj Ansary
4	111551	2013003	Akram Ansary
5	111551	2013004	Amerun Khatun
6	111551	2013005	Amit Karmakar
7	111551	2013007	Arindam Maji
8	111551	20130011	Bijoy Mahato
9	111551	20130012	Bratindranath Kumar
10	111551	20130016	Dhanapati Mahato
11	111551	20130018	Gour Mandi
12	111551	20130044	Ileen Dey
13	111551	20130047	Mousumi Mahato
14	111551	20130048	Mrityunjoy Laya
15	111551	20130024	Pradip Kumar Mahato
16	111551	20130030	Prasanjit Kumar
17	111551	20130027	Rajesh Karmakar
18	111551	20130031	Samir Sabar
19	111551	20130032	Samra Majhi
20	111551	20130035	Sandip Kumar Mandal
21	111551	20130037	Sonali Mahato
22	111551	20130038	Srikantha Majhi
23	111551	20130042	Subhajit Bhattacharjee
24	111551	20130043	Suman Bid
25	111551	20130049	Jaya Majhi

Role of Faculties:

1) **Smt. Mridula Saren (Asst Professor and Head of the Department):** Give permission to conduct the field-based project report and verification of the complete project.
2) **Dr. Baisakhi Chakraborty (State Aided College Teacher):** Conduct and supervise the whole project with research field visit along students.
3) **Sri Uttam Kumar Patra (State Aided College Teacher):** Supervise the research field survey with students.

Project Report

1. Introduction and study area

1.1. Introduction:

Western part of West Bengal is naturally blessed with forest resource, famous for its own name as 'Jangalmahal'. Among the five districts (Bankura, Paschim Medinipur, Purulia, Jharagram and Birbhum), Purulia is one of the major producers of Lac based industries. High climatic conditions, dry winter, presence of upland, scarcity of sufficient rainfall and shortage of groundwater resource makes unfavorable condition for high crop yielding capacity in this district and creates advantages to lac cultivating environment. Balarampur block is such an important hub of lac cultivation and processing in the Purulia district. Among total 138 processing units of West Bengal, 100 units approximately are located in Balarampur and 4 broodlac farms are also situated in this block (Saha and Barik, 2021). Maximum people of Balarampur directly and indirectly dependent on this industry for their livelihood and occupation.

The key ingredient of this forest- based industry is lac. Lac is a natural, renewable, bio-degradable, non-toxic resin product by the tiny insect known as Kerria Lacca (Kerr) on the tender twigs of specific host tress like Ber, Palas, Kusum, Kul, Khair, Peepal etc and termed as Rangeeni (other than Kusum trees) and Kusumi (Kusum tree) (Dasgupta and Deoghoria, 2017) (Plate 1.1).

Plate 1.1: Cultivation of lac insects in harvesting trees.

The insect Kerria Lacca or Laccifer Lacca proliferate in places at an altitude of 300m abovesea level having warm climate (12℃) with rainfall less than 150 cm (Siddharth and Mukherjee, 2002). These insects initiate life as a diminutive red colour larva just over half-a-millimeter in length and emerged in immense number from the bodies of the nature female insects and grows on twigs of certain host trees and the settlement occurs upto 150-200 larva per linear inch. It consumes the soup or juice as its food and fabricates a fluid that envelops its body as a protective cover. This fluid when hardened becomes the resin that is known as lac (Gazetteer of India, West Bengal, Purulia). The life cycle of lac insectsoccurs twice in twelve months but actually four crops are grown. The four lac crops are named after Hindi months in which they are cut from trees (Table 1.1).

Table 1.1: Seasonal harvesting of Lac

Host tree	Pruning	Harvesting broodlac & infection	Commercial crop reaped	Harvesting broodlac & infection	Name of the commercial crop
Rangeeni or non- Kusumi	Feb-March	June-July	Oct-Nov	Oct-Nov	Katki
Kusumi crop	April	Oct-Nov	Apr-May	June-July	Baisakhi
	Jan-Feb	June-July	Dec-Jan	Jan-Feb	Aghani
	June-July	Jan-Feb	Mar-Apr	June-July	Jethwi

Source: Gorai and Mahato, 2019.

The lac from which swarming is about to occur is termed as broodlac. Lac larva materialize from the brood within a week or ten days from the time of first appearance and to get exceptional result inoculation should not be deferred beyond two-three days of noting larval emergence from the broodlac. The larvas are projected to the host trees on which it is proposedto host a lac crop by time a number of sticks of broodlac to it, this is termed as inoculation or infection.

After the infection of the trees with broodlac minute or no attention is needed for the crop. When the lac crop matured in the form of broodlac is reaped by the shoots around 8-10 cm above the ground. All sticks with or without lac coat is cut so that new tillers of uniform age and size are acquired and plant can be reutilized six months after harvesting again. The encrustation on lac sticks when separated off is called stick lac and it passed through several intermediaries to reach the manufacture. In the manufacturing units, the sticklac is crushed in machines and sieved and winnowed to free it from the wooden pieces and this is then washed in cement pots. After that, the washed lac is dried on cemented floor and is again winnowed tofree it from dust and impurities and reported into different granular sizes. Due to the granular shape, it is called as seedlac and is locally known as Chowrie. The seedlac is poured in a long cloth bag, one end of which fixed to a wheel and rotated by labours. The other end of the bag is containing seedlac lies in the hand of the Kariyar sitting in front of an oval-shaped charcoaloven. The cloth bag is twisted in front of fire and the molten lac is taken out by spatula and spread over the glazed porcelain cylinder which is filled up by hot water. The molten lac on the cylinder is made into small sheet with the help of palm leaf called Near. After that, it is stretched into thin sheets with the help of hands, feets and mouth by the labour called Bhilwaya.The lac flakes are called shellac or Chapra. When the molten lac is made in the form of buttonby being spread over galvanized iron sheets, it is called button lac (Plate 1.2; 1.3; 1.4; 1.5). Theinferior varieties of malomma, kiri and passewa are obtained in different stages of the processing of lac in the factories. Lac products are usually used to wood polish, food and drug coating, seal, cosmetics etc. This product not only supplies to all over the country but also exports to outside countries and earns foreign currency.

Plate 1.2: Photographic evidences of industrial processes in lac factories (A) Raw lac (B) Crushing machine (C) Washed lac (D) Sieving of lac in different granular sizes (E) Washing of lacin cement pot (F) Melting of lac in coal oven.

Plate 1.3: (A) Preparing of lac button (B) Cotton cloth used to melting lac (C) Preparation of lac melting (D) Inferior products or by-products of lac (E) Drying of cotton cloth (F) Final product of lac button.

Plate 1.4: Photographic evidences of (A) Crude Lac (B) Sieving by male workers (C) Sieving byfemale workers (D) Seed Lac (E) Melting of lac in oven (F) Prepared Lac button.

Plate 1.5: Lac washing process with modern machineries in a govt. aided factory (A-F) .

In this total process, there are many numbers of peoples are engaged from the surrounding regions. Thereby, this labour-intensive lac industry not only provides livelihood to the cultivators and industrial workers, but also helps in conserving vast stretches of forest and uplifting economic status of the region.

1.2. Review of literature:

Many previous researches have notified that lac industrial productions are going to decline from the previous few years (Bhuin, 2013; Mondal and Sarkhel, 2015) and reported that high price of raw material, unavailability, lack of specialized and aggressive marketing system, low availability of skilled labour, uneven demand of lac products in market are the main cause of decreasing this industry (Saha and Barik, 2021). Few studies are found about household dependency of lac cultivation (Dasgupta and Deoghoria, 2017; Mandal, 2018) and socio-economic status of lac industrial workers (Saha and Barik, 2021) in different lac producing villages of Purulia district and mentioned their low economic conditions and social status.

1.3. Research gap:

All previous research studies on lac industry main focus were given on production rate, income trend from past years, socio- economic status of lac industrial workers in different villages of Purulia district. But there is no such documentation on comparative analysis on socio-economic condition of lac cultivators and lac industrial workers specially in Balarampur block.

1.4. Objective of the study:

The main objective of this study is to compare socio- economic condition of two lac depending communities (Lac cultivators and industrial workers) of Balarampur block based on Balarampur mouza (J.L. no: 46) and to find out major distressing factors with recommendation of its rejuvenation strategies.

1.5. Description of the study area:

Before independence, Balarampur was previously known as Barabhum. Recognition of Indian states in the mid-1950s, Purulia district was considered as a part of West Bengal and Barabhum renamed as Balarampur and come out as C.D (Community Development) block of Purulia district. Presently Balarampur is a census town. Geographical extent of this block is 23°00′43″N to 23°13′8″ N latitude and 86°08′4″E to 86°19′28″ E longitude with have an area of 300.88 km^2. Several types (Large, medium, small) of lac industries are established in Balarampur town from hundreds of years. Lac industry is the basic and major economic activity of this area (Plate 1.6). Thousands of workers are directly and

indirectly connected with this industry. Historical importance, engaged through generation, adequate climatic condition, good market, efficient labour, well transport and communication system help to run lac industry successfully by tradition here. Our present study is located in Balarampur mouza (J.L. no: 46) with associated all over the block for meet the objectives (Fig 1.1)

Geology and Geomorphology: Geologically Balarampur block is made with ancient Precambrian crystalline host rocks made with Granite-gneiss, mica-schist, phyllite etc. Basalt made it upper crust in this region. Fracture appears in mica-schist. Mica schist and phyllite associated with the shear zone may represent a permeable recharge zone in the region (Mitra and Acharya, 2015).

Geomorphologically, average elevation of this block ranges from 475m to 700m. Ajodhya hills forms the main highlands of this block and appears as the drainage divider between the basins of Subarnarekha and Kangsabati. General slope lies to southeast (en.m.wikippedia.org).

Climate: All over district Purulia is dominated by monsoonal climatic condition with wet summer and dry winter. Maximum temperature of Balarampur block hits upto 42°C in April-May and experiences scorching heat. In winter, temperature falls upto 6-9°C in December-January. Average rainfall of this block is recorded as 1300-1500 mm. Most rainfall occurs in July- August months.

Soil: Soil of the area are taxonomically classified into three orders i.e., Alfisol, Inceptisols and Entisols (NBSS & LUP). Basic rocks made its soil with alkaline type. Sandy- loam, loam, gravel-loam are the main soil types are found in Balarampur block.

Vegetation: Natural vegetation depends on climatic and soil condition of any region. In Balarampur block, dominancy of deciduous trees like neem, Palas, Arjun, Kul, Khair, are majorly seen. Higher presence of palm trees like dates, palm etc are also noticed. Sal, Teak, Mehagini are also found in higher altitude or hilly areas in this block.

2. Database and methodology

This study was conducted totally based on primary data i.e., field data using open ended questionnaire method. Two types of data set were prepared for different two aspects. One is based on socio-economic condition of people of lac cultivating villages and another is based on socio economic condition of lac industrial workers. 100 respondents were selected from randomly selected villagers of Balarampur block and 40 industrial workers were randomly selected from Balarampur mouza or town for collection of data (Plate 2.1). The field survey was conducted on 17th and 18th November, 2022. After field work all data were analyzed to get outcome with suitable cartographic techniques and represented with diagrams.

3. Results and discussion

3.1 Socio-economic conditions of lac cultivating villagers: Respondents of lac cultivating villages of Balarampur block are divided into four groups. Among them none respondents are from 14-45 years, 25% respondents are from 46-60 years, 35% respondents are from 46-60 years and 35% respondents are from above 60 years of age group. Respondents are classified into five categories of castes like General (18%), OBC-A (2%), OBC-B (27%), SC (17%), ST (36%). Showing ST is the dominating social category represents from those villages. In the villages of Balarampur block, agriculture farming or cultivation of crops is the main occupation (59.09%) followed by daily labour (17.2%). It is noticed that only 0.9% villagers responded that they have lac cultivation practice for occupation. Age structure of family members of villagers said that 58% members are belongs from 14-45 years of age group, 19% members are belonging from below 14 years, 15% members are from 46-60 years and 8% members of family are of above 60 years age group. Among them 58.7% members are male and 41.29% members are female. Educational qualification of family members are reported as most of members are illiterate (37.34%), 11.20% members have their primary education, 31.54% members have secondary education, 8.51% members have higher secondary and 11.41% members have their education upto graduate and above level. Most respondents reported that their per month income of family is below 5000 rupees. Only 3.63% respondents said that they have monthly income 20000 rupees and above.

Major source of income of villagers is agriculture of crop (35%), 26% villagers does income as daily labour, 5% villagers have income from lac production, 9% villagers have their own business, 1% villagers works in lac industry and 24% villagers are engaged in other works for their income.

Among all respondents, 17.27% have reported that they have their own lac cultivating field and other have no. But, 88% respondents reported that they have their own agricultural field and 12% have none of agricultural land of their own. 48% villagers that they cultivate Kusumi lac and 52% villagers cultivate lac as Rangeeni. 50% villagers have kuccha type house, 33.63% villagers have semi pukka and 16.36% villagers have pukka type house of their own.

Among the modern household facilities, 35% respondents reported that they have android phone, 12% have their television, 5% people have different furniture, 14% have their own bike, 5% respondents have personal tubewell and 3% have personal well for drinking usages, 8% respondents have their personal toilet in house.

49% respondents said they got housing scheme by PMAY and 51% respondents reported that they have not yet get any housing facilities by government.

68% lac cultivators said that they used cycle for carry raw lac to reach market, 14% respondents used bus service and 18% used motorbike to carry lac for industry. 35%, 43%, 22% respondents said their distance of villages to market within 0-5 km, 5-10 km and above 10 km respectively. Respondents from villagers claimed that low medical facilities (33%) is the major cause of problem in livelihood followed by low per capita income (30%), unemployment (15%), uncertainties of crop production (12%) and lack of government subsidies (10%).

3.2. Socio-economic conditions of lac industrial workers:

Industrial workers from different large, medium and small-scale lac processing units are classified into four age groups who have participated in questionnaire session. Among them 65% workers are below 40 years, 12.5% workers are from 40-45 years, 22.5% workers are from 45-60 years and none of workers belongs above 60 years of age group. 55% workers represent male and 45% workers represents female (Fig 3.20). Among all social caste, ST represents the major number of workers (52.5%) followed by OBC-B, SC, OBC-A and General category in different industries. 50% workers are illiterate and 255 workers have their primary education, 17.5% workers have secondary education and

7.55 of workers have upto upper primary level of education. None of workers have educational qualification upto H.S level or above. Respondent workers of lac industries are classified into six categories according to their work activity. 35% workers are engaged in washing and crushing of raw lac, 32.5% workers do their work for sieving and straining of lac, 7.5% workers control heating process of lac melting, 17.5% labour are engaged in ballow moving, 5% workers prepare lac button and 2.5% labour prepare lac stamp in industries. 85% industrial labour said their monthly income ranges between 5000-10000 rupees. No workers have been paid above 15000 rupees in any industry. 42.5% labour resides between 5 to 10 km distance from their industry, 32.5% labour comes from 0-5 km distance of nearby villages and 25% labour comes from more than 10 km distance of own villages to their working industry. Workers generally used bicycle (65%) for transport communication to industries, 25% labour comes by walking, 5% avail train and bus separately to reach industries in Balarampur town. 47.5% workers have reported that they have their work experience more than 10 years, 305 workers have experience 5-10 years and 22.55 workers have less than 5 years of experience in lac industry. Among them 55% workers are engaged in this occupation through generation and 45% workers are newly engaged in this occupation and have no family tradition in lac work. Major number of lac workers have said that other than working in industry they have their own crop cultivation (26.19%) for source of income followed by daily workers, other occupation, lac cultivation and business. No workers have livestock farming in their house. But 23.80% workers responded that work in lac industry is the only source of income of them. Among all modern household amenities 34.725 workers have their personal android phone, 9.72% workers have television in their house, 2.77% workers have furniture, 12.5% workers have property land.

72.5% labour have kuccha type of house, 20% labour resides in semi pucca type house and 7.5% workers have their pukka house in village. 45% of workers are facilitated with PMAY of housing scheme and 55% workers have reported that they have not get any housing facilities given by government. Workers of different lac processing industries in Balarampur mouza have claimed that low per capita income (43%) is the main problem of their livelihood. Uncertainties of crop production (15.2%) is the second factor of their livelihood problem, low medical facilities (13.8%) in villages, lack of government subsidies (11.2%), unemployment (6.9%), job insecurity (5.5%) and are also important issues of workers livelihood problem. Also, 47.5% of industrial workers have claimed that they experienced health related issues like breathing problem, lung diseases, skin burning, stomach problem, insomnia etc due to working in a non-proper environment at lac industries. Major workers (97.5%) in different

industries have reported that there is no increasement of lac production at present and remain same from the past in their industries.

3.3. comparison of two socio-economical communities:

The study is tried to find out the socio-economic comparison of lac cultivators of Balarampur block and lac industrial workers of Balarampur mouza. The study have found that most of lac cultivating villages stopped lac cultivation and engaged in agricultural activities. Also, industrial workers of different lac processing units are engaged in agricultural activities for earn money. In these two communities, ST caste belongs to the dominant category of both the profession. Lac cultivators have more educational qualification than industrial workers. Though, there is major number of illiterates in both communities. It is notified that lac cultivators have more income than industrial workers because cultivators have turned their lac cultivation practice for a secondary source of income now days. They mainly earn from agricultural crop production in rainy season. On the other hand, labours of lac processing units are dependent mainly on industrial earning and they have paid a very little amount in most of cases (200-300 rupees/day). Most of the lac industrial workers are lives in kuccha house and fewer have pukka house for reside of them. On the other hand, lac cultivators have sufficient number of semi pukka and pukka type of house for their living. It has been noticed that respondents of low monthly income have high number of personal android phone in both cases. On the other hand, respondents of high income (more than 15000 rupees) have low number of personal drinking water facilities, medical checkup, electronic gadgets, bikes and educational expenses. Both lac cultivators and industrial workers, mostly used cycle for transport communication from their own villages to industry. A number of lac cultivators used personal bike for transport raw lac to industries. But many factory workers cannot afford any communication system, and they used to walk by foot to reach to their industry. Both communities have reported low per capita income, unemployment, lacking of medical facilities are the major problem of their livelihood.

The above analysis clearly indicated that industrial workers of lac processing unit in Balarampur mouza are more socio-economically weaker than lac cultivators of Balarampur block. Cultivators of those villages have loosed their interest in cultivate lac due to many disadvantage factors and converted their land to agricultural production. Therefore, distressing factors of lac cultivation in Balarampur block is highly needed to take into light for its proper management practices.

3.4. Delimitations of lac cultivation and industrial production in Balarampur block:

Lac is generally cultivated by the people of so-called poor communities who carry on their livelihood with much distress. There are many problems in lac cultivation and it becomes too much because of the poverty of the lac growers. Based on the survey analysis we categorized the problems into following issues:

1. Insufficient and partial govt. supply of broodlac: Very low availability of high quality Kusumi broodlac is one of the major distressing factors. Uncontrolled deforestation and

cutting of Kusumi trees for timber production is the main cause of unavailability of Kusumi production.

2. Insufficient supply of instruments: It is very difficult to purchase high technology instrument for lac processing by the poor farmers own. Govt. supplies some instruments to those but in a insufficient number. Therefore, traditional techniques are being used in most villages that produce low amount of materials.
3. Damage of lac insects by parasites and predators: Many times, lac insects are affected by harmful parasites and cause damage of lac cultivation.
4. Illiteracy and lacking of interest of lac growers: Most of lac cultivators are illiterate and have no traditional education qualification, thereby they are unable to take proper care of lac insects, seeds. Also, very low net returns of lac farmers also decrease interest on lac cultivation at present.
5. Environmental causes: Cultivators have reported environmental pollution due to setup of sponge iron factories; roadside dusts (Plate 3.2) are one of the major causes of destruction of lac insects in trees.
6. Monopolistic mature of market: The farmers do not get due sale price of lac sticks because there is no regular market. Generally, a group of middleman purchase sticklac from the growers who control the whole market. There are no cooperative societies.
7. Fluctuation in price of lac: Due to seasonal and unpredictable nature of the lac crop, this trade is strongly influenced by speculative operators and price fluctuate violently, from season to season, year to year.
8. Old method of lac cultivation: Traditional cultivation practices have not been sustainable due to high past infection and over exploitation of host plants. Therefore, the old methods do not give sustained supply of broodlac which is required twice in a year. The cultivators do not adopt any new scientific method which can enhance the intensity of lac cultivation.

Other important distressing factors of lac cultivation are

- No loan facilities from the government
- No proper training program by the government
- Climate extremes etc.

3.5. Rejuvenation strategies for lac cultivation and workers socio- economic development:

Lac is forest based traditional cash-crop resource of Balarampur block. But various delimitating factors decreasing its glory presently from few years ago. It is highly needed to conserve this eco-sustaining cottage -industry for growth of economic and social condition of depending communities and the national market also. Here, some measurement practices are recommended for conservation of lac cultivation and development of livelihood as follows:

1. To take restriction on uncontrolled cutting of lac harvesting trees.
2. To take restoration on unscientific set up of sponge iron industries and control on pollution release in open air.
3. To take proper land use planning strategies and plantation of lac harvesting trees awayfrom road side or industrial area.

4. Increasement of govt. subsidies to promote lac cultivation.
5. Supply of lac insects, pesticides etc to the farmers by government in a regular basis.
6. Arrangement of proper training program to lac cultivators on a scientific way by govt.or NGOs.
7. Proper distribution of govt. subsidies medical, housing facilities to lac cultivators and industrial workers.
8. Increase of daily wages of labour in lac industries to develop socio- economiccondition.
9. Arrangement of awareness program to cultivators and industrial workers to sustain thelac production in a fruitful way.
10. Setup of co-operative societies to proper distribution of money from market to labour.
11. Increase of medical facilities, health center to regular health checkup of industrial workers.
12. Job generation and reduction of unemployment, security of job in lac industry can promote interest again to lac cultivators and industrial workers to sustain this industry.

4. Major findings and conclusion

The forest based eco-sustainable lac industry is traditional and major economic activity of Balarampur block. Raw lac is produced in different harvesting trees named Rangeeni and Kusumi in different scattered forest areas. Once Balarampur block was highly famous for lac production in its most villages by tradition. But, day by day lac harvesting culture loses its practice in this block thus a major depending community shifted to other occupation for their income. This study highlighted the socio-economic condition of lac cultivators of Balarampur block and lac industrial workers of Balarampur mouza (J.L no. 46) with spotted its destressing factors. The study is performed on the basis of household questionnaire survey by randomly selected lac cultivating villages and workers of different lac processing industries. The output reveals ST community is dominantly engaged in both lac cultivation and work in lac industry. Most villagers and industrial workers are illiterate and few have their educational qualification upto secondary level or higher secondary level (11.41%). Family members of some lac cultivators have gained their educational qualification upto graduate or higher level as reported. Major number of villagers has stopped lac cultivation and engaged in agricultural production (59.09%), followed by daily workers (17.2%) and others. But, workers of lac industries said that it's the main profession of income. Though, most of them have agricultural fields as other source of income. 3.63% respondents of villages said their family income more than 20000 rupees/month, otherwise most of villagers have their per month family income less than 5000 rupees. 85% workers of lac industries have per month income between 5000- 10000 and no one is paid higher than 15000 rupees/month. 50% lac cultivating villagers have kuccha type house, but 72.5% lac industrial workers have own kuccha type house in their village. Most lac cultivators and industrial workers have their own android phone as household facilities. But is noticed that families of high income do no considers their having

personal android phone. They are likely to invest their money on medical treatment, personal drinking water source or educational expenses. Most of the industrial workers(65%) used bicycle as transport mode and 25% workers comes to their factory by walking. Most villagers of lac cultivation claimed low medical facilities is the major issue of livelihood. But most industrial workers claimed that low per capita income is their major issue of livelihood. The overall assessment suggested that lac industrial workers are more socio-economically weaker than lac cultivating villagers. This is dueto lac cultivators have shifted their profession to other economic activities to income high. But most of lac workers are engaged through generation in this industry. The major cause of focusing out from lac cultivation is improper planning and management policies of government, no cooperative societies to control market, fluctuate of price in lac market, environmental pollution, no subsidies by government, no health policy of workers etc. Therefore, a sustainable management policy is highly demanded for keepthis forest based eco-friendly heritage industry of Balarampur block and development of socio-economic condition of a vast rural community directly and indirectly engagedin this economic activity.

Funding of the project: The total project was conducted completely by self-funding of the participated students. There has been no issue of funding by Government or other private organisation.

Acknowledgement: We, the Dept. of Geography are highly acknowledged to the Principal of the College Dr. Santanu Chattopadhyay for his kind consideration and cooperation to complete the project successfully. We are thankful to our students, departmental teachers and staffs for their friendly association. There is no issue of conflict about the whole work.
Thank You.