

COVID-19 Pandemic and Livelihood Vulnerability: A Community Based Assessment of Human Hair Business of Chandipur-Bhagwanpur Region of Purba Medinipur District in West Bengal

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Abstract - Ever since COVID-19 invaded this globe, people across the world are in fear. This global health pandemic has touched every human person's life in some way or the other, forcing isolation, uncertainty, anger, and hopelessness and this coupled with the economic meltdown which is causing huge psychological distress. The *COVID-19 pandemic* is a threat to human society, both for risking human life ensuing economic distress, and for its invisible emotional strain. The corona virus outbreak is severely disrupting the global, national, regional and local economy.

Chandipur-Bhagwanpur is well-known for its human hair export business for last one and half decade. *Domestic employment* opportunity, higher range of daily wage, child to old aged earning facility, household industrial platform, *in situ import-export* scope, etc. are the driving forces to accelerate this *informal business* here. Moreover, the most vulnerable marginal section of the villages and towns are engaged in this very specific informal sector of local economy. But after the corona virus outbreak, the industry has taken a nosedive. The deadly corona virus has hit the *human hair export business* like other economic ways in Chandipur- Bhagwanpur region in Purba Medinipur like several districts of West Bengal because Chinese importers stopped coming to the state to book consignments following the outbreak of the disease. Tons of human hair collected from villages across the country by rag pickers reach here through agents and middlemen. It is cleaned and processed in the backyard industry before being exported to China. Thousands of people across the region, including around 20-odd exporters who run the cleaning and processing industries, are directly and indirectly associated with this business. Eventually, this life earning way reflects the enormous short term socio-economic gain than long term costs from economy and environment. Due to uncertain exporting scope to Chinese importers, a huge quantity of cleaned and processed hair is now dumped in the godowns. Crores of rupees have been lost from this business for last few months only. Some exporters have already started layoff. Thousands of workers work in the hair cleaning factories of the region and earn between Rs 400 and Rs 700 every day. Many workers and agents have lost jobs and have threatened from socio-economic security. Thousands of local families have been faced on the problem to arrange even two square meals. The socio-economic crisis has been brought at its acute level. Under this backdrop, this research paper depicts the ground truth of the impact of COVID-19 outbreak on regional economy, society and environment of Chandipur-Bhagwanpur region and finds the possible ways in which the disease and crisis situation can be controlled maintaining its *socio-economic costs* in terms of *occupational security and sustainability*.

Keywords: *COVID-19 outbreak, Human Hair Business, vulnerable, informal sector, in-situ import-export, socio-economic costs, occupational security and sustainability.*

I. INTRODUCTION

The outbreak of the Covid-19 pandemic is an unprecedented shock to the Indian economy. The economy was already in a parlous state before Covid-19 struck. With the prolonged country-wide lockdown, global economic downturn and associated

disruption of demand and supply chains, the economy is likely to face a protracted period of slowdown. [9] [10] Covid-19 has posed an unprecedented challenge for India. [25] Both formal and informal sector have been affected tremendously by this Covid-19 pandemic. India has a very high share of informal employment in total employment. [25] Hair business is also one of the informal economic sectors in India which is now in danger with uncertainty due to the disrupting situation of trade in between China and India under global covid-19 outbreak.

The global trade in human hair and its products is soaring and becoming a major industry. [www.coursehero.com] Celebrities are increasing the popularity of using real hair to supplement their own. [15] The celebrity culture has made hair extensions more popular and everyone wants hair from India. [15] India is the leading exporter of human hair. Indian hair is considered to be fine, lustrous and free from chemical treatments making it suitable for manufacturing wigs. The hair exported from India is raw or processed/ polished. [36]

India is the leading exporter of human hair. Indian hair is considered to be fine, lustrous and free from chemical treatments making it suitable for manufacturing wigs. [23] The hair exported from India is raw or processed/ polished. India exports various types of human hair viz., Remi, single drawn, double drawn, weft, curly, wavy and non-remy. Among these single drawn is exported in large volume since it is lengthy in nature as compared to other types. [17]

The export of long hair from India was a very big business in the 1960's and the demand was so much so that the prices kept on climbing to a very high level since the quantity of supply was limited. [36] In 1970 the Japanese found out the synthetic hair, which was much cheaper and can be manufactured to any length. Due to this the entire market for natural human hair more or less collapsed for the next ten years. However, in the mid 80's customers after using the synthetic hair for a long period realized that the natural hair even though expensive is far better in quality and comfort for wigs and extensions. So the demand for human hair started picking up.

At present, India accounts for 15 percent of world human hair import was 1,339 million US dollars. China, Brazil, Hong Kong, Italy and U. S. are top five importers of Indian hair. [13] Recently, India is exporting human hair to more than 25 countries and the exports are increasing over these years. Due to superiority in quality the demand for human hair is increasing day by day. Changes in cultural activities and booming fashion industry has created an opportunity to enhance the trade of human hair. [21]

Human hair business has become one of the busiest and noiseless industries in India. The essential steps in this business are systematic collection of human hair from temples, proper processing and grading of hair, establishment of industries domestically for value-addition, taking care of the workers who are involved in processing especially about their health and steps should be taken to identify new markets for human hair and its products in European or China markets.

In case of our study area, Chandipur-Bhagwanpur region, there is dominantly observed human hair business reflecting its informal behavior and having the large number of local workers involvement for different categories of hair related work. Domestic employment opportunity, higher range of daily wage, child to old life earning facility, household manufacturing platform, in situ import-export scope, etc. are the driving factors to accelerate this informal business here.

This paper considers Chandipur-Bhagwanpur region of Purba Medinipur District in West Bengal where the trend in rural hair business and its impacts on society, economy and environment have been increasing in fabulous manner. Extensive questionnaire survey, perception study, group specific interview, loss valuation and analysis, assessment of socio-economic impact through data compilation and by proper techniques reflect the economic and socio-cultural costs of hair business in the study area due to recent global COVID-19 outbreak.

II. LITERATURE REVIEW

The deadly coronavirus has hit the human hair and crab export business in several districts of West Bengal after Chinese importers stopped coming to the state to book consignments following the outbreak of the disease. [30]

Of all trade between India and China impacted by the Coronavirus, perhaps the least known was the export of human hair from one particular district in West Bengal. More than 50 exporters from Murshidabad district earn their living by cleaning and processing tonnes of human hair that is then sent to China's wig-making industry. The hair makes its way to Murshidabad from landfill sites across India, and more than two lakh people directly and indirectly involved in the industry have seen a drop in their incomes since the outbreak of the virus. India has tightened visa rules for Chinese nationals, making it difficult for importers to travel to India for the hair trade. From human hair to cumin seeds, what the Coronavirus panic has taught Indians about China. As China's biggest trade partner, India has been affected by the virus in many big and small ways. [24]

In-depth Analysis of how COVID-19 is impacting the human hair wigs and extensions market. [19]

Due to the pandemic, we have included a special section on the Impact of COVID 19 on the Human Hair Wigs and Extensions Market which would mention How the Covid-19 is Affecting the Human Hair Wigs and Extensions Industry, Market Trends and Potential Opportunities in the COVID-19 Landscape, Covid-19 Impact on Key Regions and Proposal for Human Hair Wigs and Extensions Players to Combat Covid-19 Impact. [19]

Due to first outbreak of corona virus in Wuhan Province of China and then global outbreak of it, the exporting of processed hair from India has been stopped and human hair business is affected tremendously. As the result, several thousands of engaged people and workers in human hair business and manufacturing are suffered from the uncertainty of this life earning way. Crores of rupees is lost from hair business in Purba Medinipur district including Bhagwanpur-I and II, Chandipur, Patashpur regions due to the deadly impacts of corona virus and war prone atmosphere in India-China relation for Ladakh conflict recently. [29]

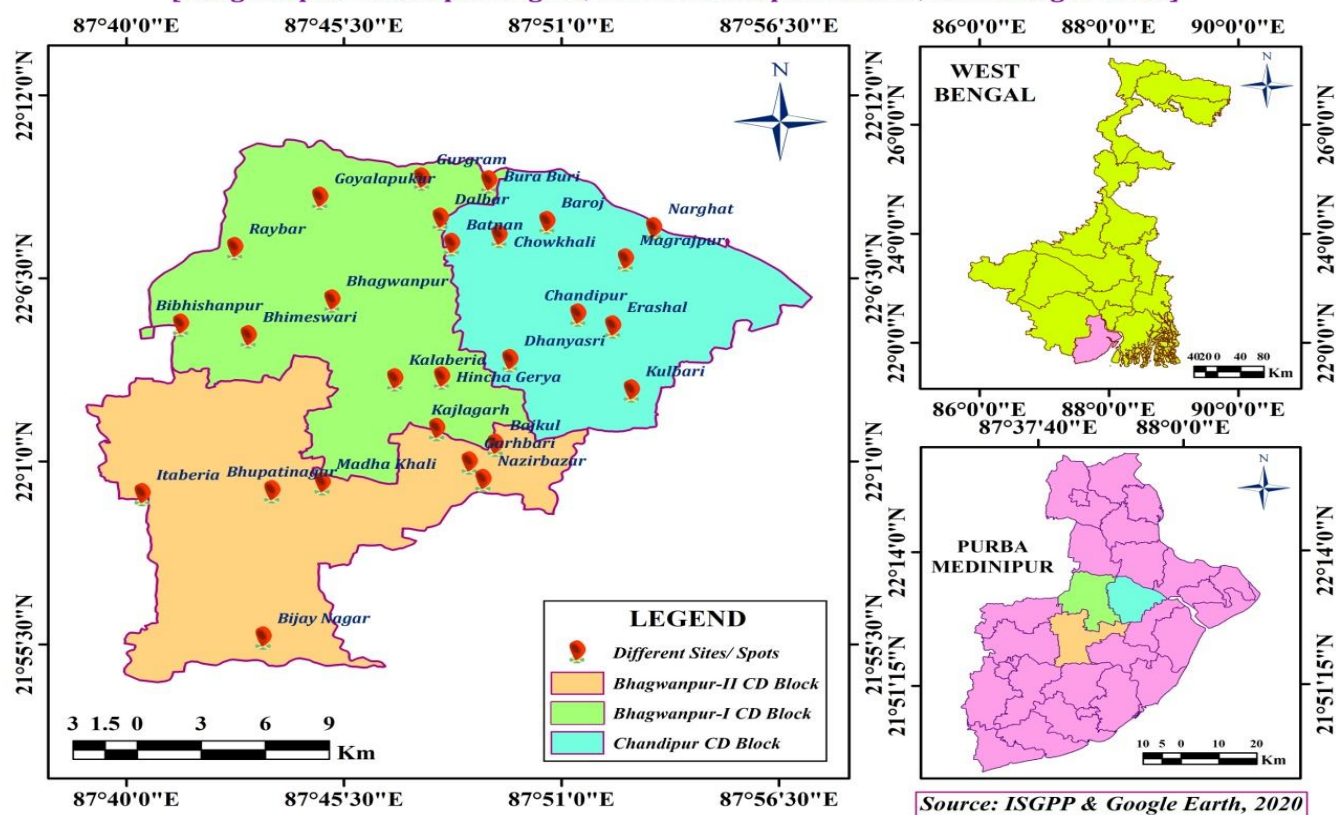
Corona virus pandemic has hit hard the human hair business in Purba Medinipur district in West Bengal. Since, Chinese importers stopped coming to the state to book consignments following the outbreak of the disease. Thousands of people across the region, including around 20-odd exporters who run the cleaning and processing industries, are directly and indirectly affected. Due to uncertain exporting scope to Chinese importers, a huge quantity of cleaned and processed hair is now dumped in the godowns. Crores of rupees have been lost from this business for last few months only. [1]

III. LOCATION OF THE STUDY AREA

The study area, Chandipur-Bhagwanpur region includes 3-CD blocks as Chandipur, Bhagwanpur-I and Bhagwanpur-II in Purba Medinipur district of West Bengal in India. This is situated within the extension of $21^{\circ}55'00''\text{N}$ to $22^{\circ}11'30''\text{N}$ latitude and $87^{\circ}39'30''\text{E}$ to $87^{\circ}56'45''\text{E}$ longitude. The study area reflects the common rural and rurban scenario having the main economic feature as agriculture followed by hair business, aquaculture and brick manufacturing. The average height of the region from mean sea level (MSL) is ranged within 4 - 5 metre, not exceptional than other rural segments over Midnapore coastal plain in South Bengal.

LOCATION MAP OF THE STUDY AREA

[Bhagwanpur-Chandipur Region, Purba Medinipur District, West Bengal- 2020]



Map 1: Location Map of the Study Area

IV. AIM & OBJECTIVES

4.1 Aim: Assessment of socio-economic impacts and shock in human hair business of Chandipur-Bhagwanpur region due to COVID-19 outbreak.

4.2 Specific Objectives:

- ❖ To estimate the driving causes for emerging and developing the hair business in the study areas;
- ❖ To investigate the socio-economic benefits and costs of hair business to the study area;
- ❖ To estimate and assess the socio-economic impacts and loss due to global COVID-19 outbreak on the regional livelihood in the study area.
- ❖ To justify the administrative as well as government role and find out the pathway for economic recovery and smooth restarting the occupation and confirm the economic security of the labourers engaged in this informal sector.

V. METHODS AND METHODOLOGY

Table 1: Methods and Methodology for the Study

Major Stages	Applicable Methods		Tools & Techniques	Remarks
Pre-field Stage (Preparatory Phase)	Study Area Selection		Discussion with Expertise/ Resource Persons/ Academicians/ Others Taking Help from Previous Papers of the Authors	Primary Thinking, Mental Fixation, Work Planning & Preparation for Field Survey and Research Work Considering Broad Point of View.
	Problem Selection			
	Formulation of Problems			
	Statement of the Problem			
	Literature Review		Offline/ Library Research & Online Literature Review	
	Objectives Formulation		Cultivation of Research Problem and Literature Review	
	Preparation of Data and Map Collection Tools & Techniques		Sampling Techniques Fixation	
Survey Schedule/ Questionnaire preparation				
Google Earth, IRS LISS-III, LANDSAT Images				
Field Stage (Action Phase)	Data Collection	Primary	Different kinds of Survey & Interviews: Household Survey, Labour Specific Survey and Interview, Agent Specific Survey and Interview, Owner and Trader Specific Survey and Interview, Institutional Survey and Official Interview, etc.	Different kinds of surveys and interviews with relevant section and characters have been emphasized here. Gathering of secondary database regarding related fact and issue have been considered also.
		Secondary	Historical Records, Books, Reports, Articles, Journals, Media reports, Documents from Various Sources	
Post Field Stage (Processing & Implementation Phase)	Data Processing & Analysis	Data Organization	Different Laws/ Formulae And Use of MS Excel, SPSS Software, etc.	Data Organization and Processing, Mapping Analysis, Result Discussion, Result Justification, Recommendations Fixation and Finalizing, Report Writing Have Been Done Sequentially and Systematically.
		Data Compilation		
		Data Calculation & Presentation		
	Mapping Analysis		Google Earth, IRS LISS-III, LANDSAT Images & Arc GIS	
Result & Discussion		Vivid Analysis and Draw Outcomes		
Source: Author's Own Composition				

Source: Author's Own Composition

Table 2: Sampling of GPs, Villages, Households and Workers for the Study

Sl. No.	Sub-regions of Chandipur- Bhagwanpur Region	Influenced GP	Sample GP	% of Sample GP	Influenced Villages	Sample Villages	% of Sample Villages	Influenced Households	Sample Households	% of Sample Households	Influenced Population	Sample Population	% of Sample Population	Number of Workers engaged in Hair Business	Sample Workers	% of Sample Workers
1.	Chandipur CD Block	5	4	80	30	15	50	3490	350	10.0	16750	875	5.2	9270	940	10.1
2.	Bhagwanpur-I CD Block	7	5	71	48	24	50	4968	500	10.1	22360	1250	5.6	12125	1325	10.9
3.	Bhagwanpur-II CD Block	4	3	75	35	18	51	2855	290	10.2	12850	725	5.6	7710	770	10.0
	TOTAL	16	12	75	103	57	55	11313	1140	10.1	51960	2850	5.5	29105	3035	10.4

N.B.: systematic Random Sampling, Stratified Random Sampling and Purposive Sampling Techniques have been used in case of data collection from the field for this study.

Source: Field Survey, 2019-'20 & 2021-'22

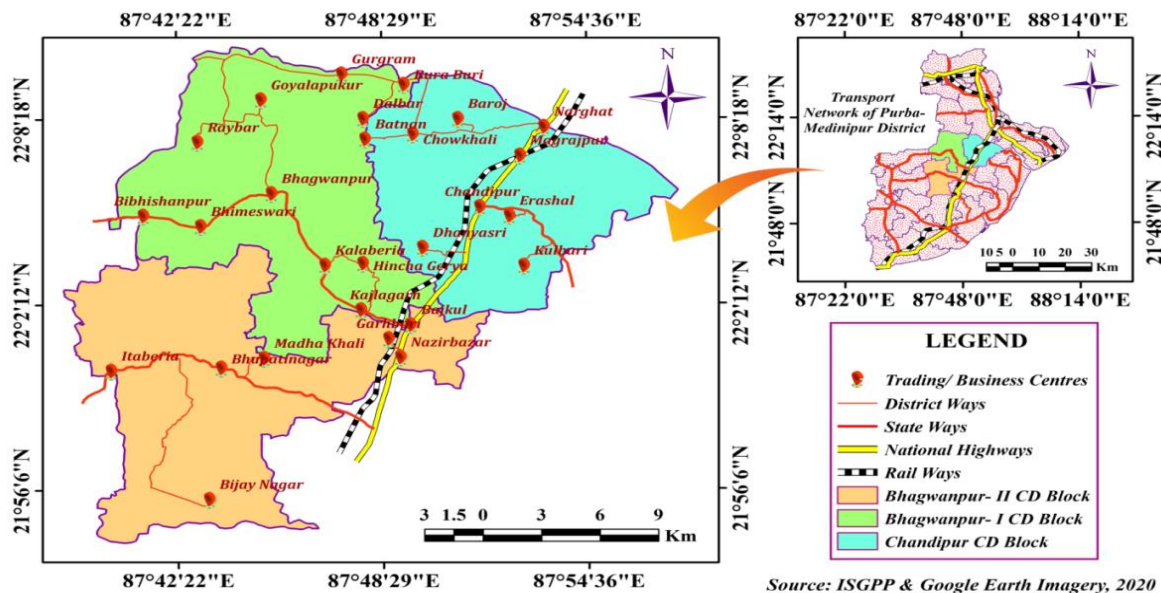
VI. GENERAL DISCUSSION ABOUT HAIR BUSINESS IN THE STUDY AREA

6.1 Distribution of Hair Processing and Business Centre:

Throughout the Chandipur-Bhagwanpur region, there are at least 30-hair collecting, processing, manufacturing and business centres. Among all those centres, two centres, Bhagwanpur and Chandipur are leading characters from the view point of trading of processed hair. Bajkul, Kalaberia, Chowkhali, Narghat, etc. are of second order business centre featured by hair processing also. Other centres are characterized by hair collecting and processing mainly through the activation of agents. But, this should be noted that many more small centres relating human hair business have been evolving domestically by the local entrepreneurs throughout the region in time.

DISTRIBUTION OF HAIR COLLECTING & PROCESSING CENTRES THROUGHOUT THE REGION

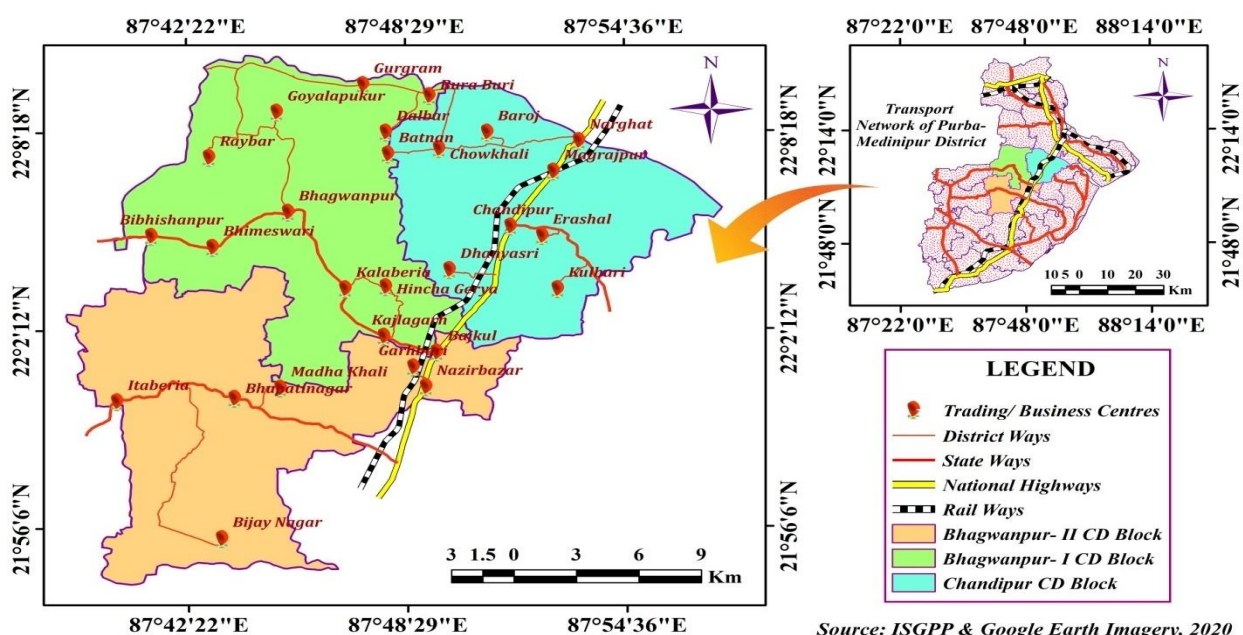
[Chandipur-Bhagwanpur Region, Purba Medinipur District, West Bengal]



Map 2: Distribution of Hair Processing and Business Centres throughout the Study Area

DISTRIBUTION OF HAIR COLLECTING & PROCESSING CENTRES THROUGHOUT THE REGION

[Chandipur-Bhagwanpur Region, Purba Medinipur District, West Bengal]



Map 3: Nature and Status of Hair Processing and Business Centres throughout the Study Area

Table 3: Major Hair Manufacturers and Traders and particulars in manufacturing

Sl. No.	Major Hair Manufacturers & Traders	Regional Address	Particulars in manufacturing
1.	Aktiar Human Hair Company	Bhagwanpur, Purba Medinipur, West Bengal	<ul style="list-style-type: none"> ❖ Human Hair Wholesalers ❖ Curly Hair Wig Wholesalers ❖ Human Hair Extension Wholesalers
2.	Shahrukh Khan	Bhagwanpur, Purba Medinipur, West Bengal	<ul style="list-style-type: none"> ❖ Human Hair Wig Manufacturers ❖ Women Wig Manufacturers ❖ Human Hair Manufacturers ❖ Natural Hair Wig Manufacturers
3.	Rs Enterprises	Bhagwanpur, Purba Medinipur, West Bengal	<ul style="list-style-type: none"> ❖ Human Hair Wholesalers , ❖ Non Remy Human Hair
4.	Nasir Enterprise	Bachchipur-Bhagwanpur, Purba Medinipur, West Bengal	<ul style="list-style-type: none"> ❖ Human Hair Wig Manufacturers ❖ Human Hair Manufacturers ❖ Virgin Human Hair Manufacturers ❖ Artificial Hair Manufacturers ❖ Human Hair Extension Manufacturers
5.	Mujibar International Pvt Ltd	Bachchipur-Bhagwanpur, Purba Medinipur, West Bengal	<ul style="list-style-type: none"> ❖ Non Remy Human Hair Manufacturers ❖ Human Hair Manufacturers ❖ Virgin Human Hair Manufacturers ❖ Human Hair Extension Manufacturers
6.	Hm Human Hair Processing	Kotebar-Bhagwanpur, Purba Medinipur, West Bengal	<ul style="list-style-type: none"> ❖ Human Hair Manufacturers ❖ Long Wig Manufacturers ❖ Wavy Hair Wig Manufacturers
7.	Sree Maa Enterprise	Bhagwanpur, Purba Medinipur, West Bengal	<ul style="list-style-type: none"> ❖ Straight Hair Extension Manufacturers ❖ Human Hair Manufacturers ❖ Virgin Human Hair Manufacturers ❖ Human Hair Extension Manufacturers ❖ Non Remy Double Drawn Hair Manufacturers
8.	Tapobon Udyog	Bajkul-Bhagwanpur, Purba Medinipur, West Bengal	<ul style="list-style-type: none"> ❖ Human Hair Wig Manufacturers ❖ Lace Closure Manufacturers ❖ Hair Extension Manufacturers ❖ Human Hair Manufacturers ❖ Human Hair Extension Manufacturers
9.	Mm Enterprises	Bhagwanpur, Purba Medinipur, West Bengal	<ul style="list-style-type: none"> ❖ Human Hair Manufacturers
10.	Sahira Enterprise	Chandipur, Purba Medinipur, West Bengal	<ul style="list-style-type: none"> ❖ Human Hair Wholesalers ❖ Non Remy Human Hair Wholesalers ❖ Human Hair Extension Wholesalers
11.	Sk International	Chandipur, Purba Medinipur, West Bengal	<ul style="list-style-type: none"> ❖ Human Hair Manufacturers
12.	Ilma Enterprises	Chandipur, Purba Medinipur, West Bengal	<ul style="list-style-type: none"> ❖ Human Hair Wig Manufacturers ❖ Non Remy Human Hair Manufacturers ❖ Machine Weft Hair Manufacturers ❖ Human Hair Manufacturers ❖ Virgin Human Hair Manufacturers ❖ Human Hair Extension Manufacturers
13.	Raj Enterprises	Sultanpur-Chandipur, Purba Medinipur, West Bengal	<ul style="list-style-type: none"> ❖ Non Remy Human Hair Manufacturers ❖ Remy Double Drawn Hair Manufacturers ❖ Human Hair Manufacturers ❖ Non Remy Double Drawn Hair Manufacturers ❖ Human Hair Extension Manufacturers
14.	Tripathy Enterprises	Neturia-Atattar-Chandipur, Purba Medinipur, West Bengal	<ul style="list-style-type: none"> ❖ Human Hair Wig Manufacturers ❖ Men Wig Manufacturers ❖ Human Hair Manufacturers ❖ Curly Hair Wig Manufacturers
15.	Jana Human Hair Factory	Atattar-Chandipur, Purba Medinipur, West Bengal	<ul style="list-style-type: none"> ❖ Non Remy Double Drawn Hair Wholesalers ❖ Human Hair Wholesalers ❖ Human Hair Wig Wholesalers ❖ Curly Hair Wig Wholesalers ❖ Non Remy Human Hair Wholesalers ❖ Human Hair Extension Wholesalers
16.	Alam Human Hair Pvt Ltd	Chandipur, Purba Medinipur, West Bengal	<ul style="list-style-type: none"> ❖ Human Hair Wholesalers ❖ Remy Hair Wholesalers ❖ Remy Hair Extension Wholesalers ❖ Human Hair Extension Wholesalers ❖ Machine Weft Hair Wholesalers
17.	Bran India Management	Chowkhali-Chandipur, Purba Medinipur,	<ul style="list-style-type: none"> ❖ Human Hair Wholesalers

	Services Pvt Ltd	West Bengal	<ul style="list-style-type: none"> ❖ Virgin Human Hair Wholesalers ❖ Human Hair Extension Wholesaler
18.	Md Human Hair Enterprise	Chandipur, Purba Medinipur, West Bengal	<ul style="list-style-type: none"> ❖ Human Hair Wig Manufacturers ❖ Remy Hair Extension Manufacturers ❖ Human Hair Manufacturers ❖ Human Hair Extension Manufacturers

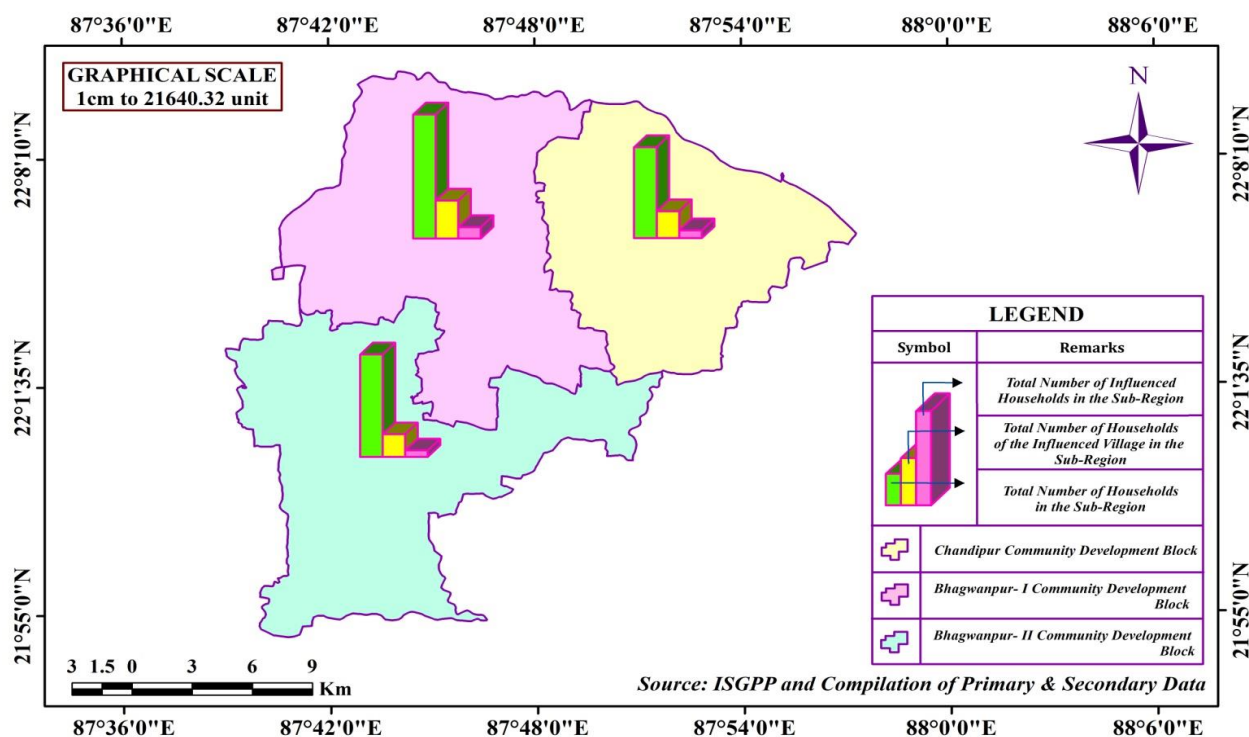
Field Survey, 2019-20 & 2021

6.2 Worker profile engaged in hair business in the region:

Table 4: Worker profile engaged in hair business in the region						
Sl. No.	Sub-regions of Chandipur-Bhagwanpur Region	Number of Total Worker	Number of Workers Engaged in Hair Business	Number of Outsider Workers Engaged in Hair Business	Total Workers Engaged in Hair Business	% of Workers w.r.t. Total
1.	Chandipur CD Block	67904	9270	1475	10745	13.7
2.	Bhagwanpur-I CD Block	90406	12125	1795	13920	13.4
3.	Bhagwanpur-II CD Block	115028	7710	1010	8720	6.7
	TOTAL	273338	29105	4280	33385	10.65

Source: Compilation of Primary and Secondary Data, 2019-20 & 2021

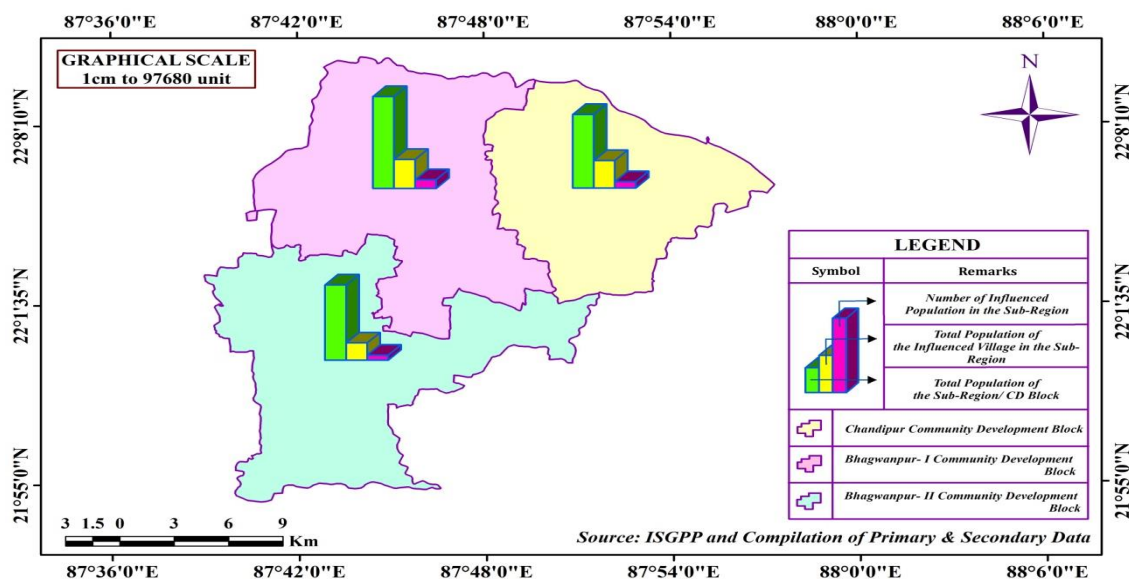
BLOCK WISE HOUSEHOLDS ENGAGED IN HUMAN HAIR BUSINESS [Chandipur-Bhagwanpur Region, Purba Medinipur, West Bengal, India- 2020]



Map 4: Block wise Households influenced by Hair Business in the Study Area

BLOCK WISE POPULATION ENGAGED IN HUMAN HAIR BUSINESS

[Chandipur-Bhagwanpur Region, Purba Medinipur, West Bengal, India- 2020]

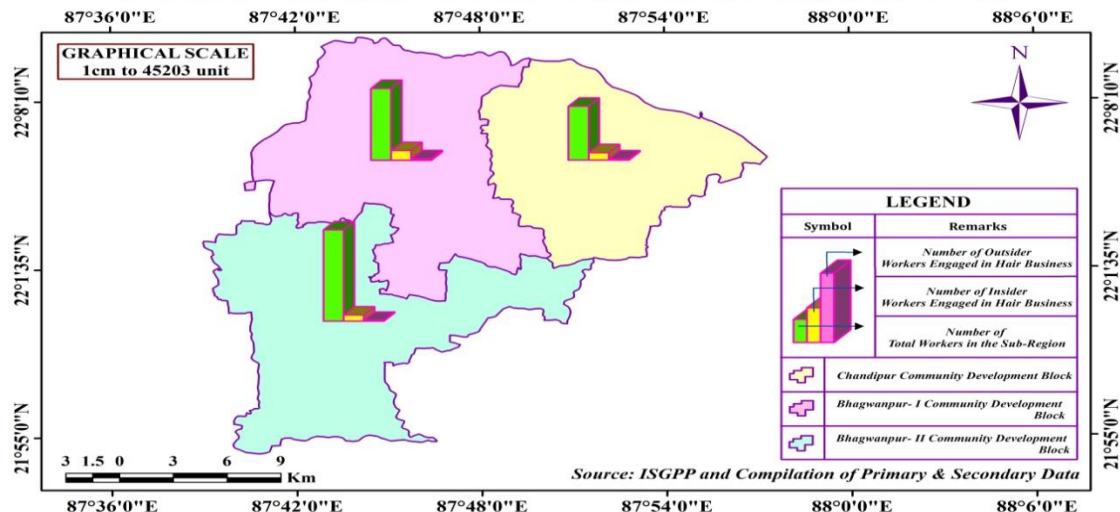


Map 5: Block wise Households and Population influenced by Hair Business in the Study Area

The collected and compiled data shows that about 33400 of workers are directly related to this informal economy where 29000 is of local destination and 4280 comes from outside. About 11% of the total workers in the region are actively engaged in this occupation. Comprehensively, about 35000 workers are oriented with this industry in the region directly and indirectly.

BLOCK WISE WORKERS INFLUENCED BY HUMAN HAIR BUSINESS IN THE STUDY AREA

[Chandipur-Bhagwanpur Region, Purba Medinipur, West Bengal, India- 2020]



Map 6: Block wise Workers influenced by Hair Business in the Study Area

6.3 Workers engaged in hair business across religion and gender:

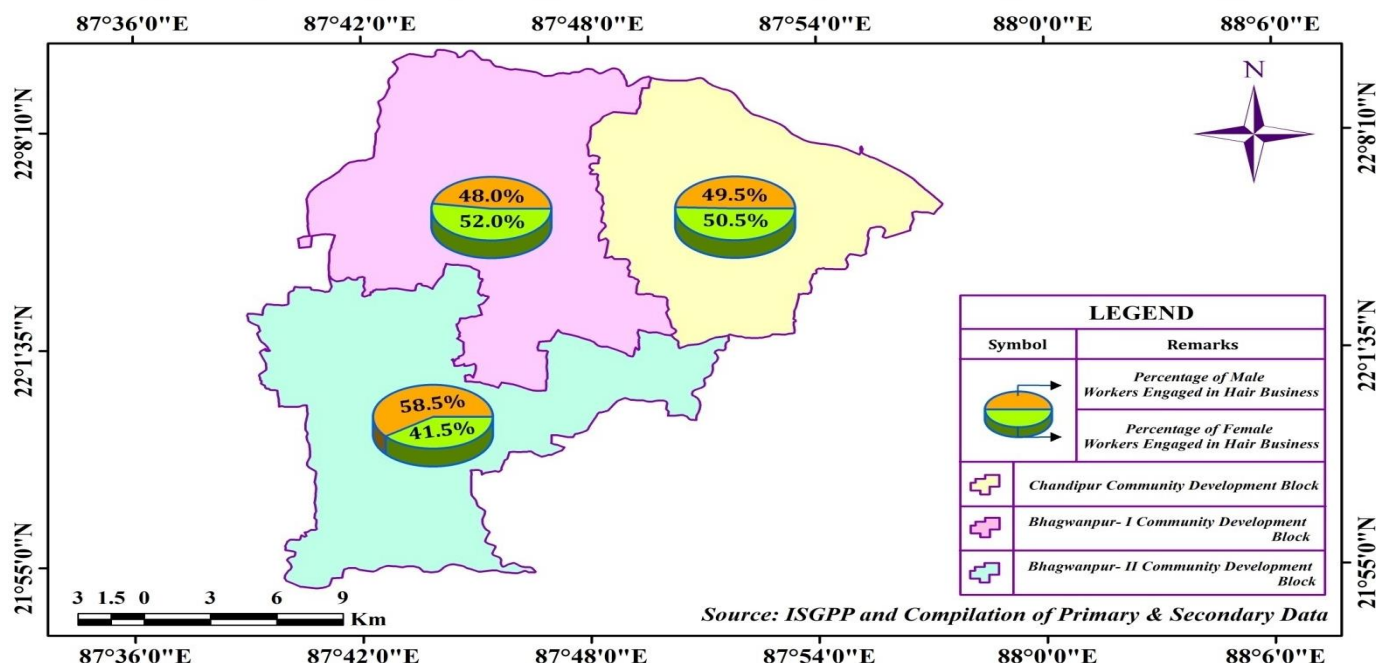
Table 5: Workers engaged in hair business across religion and gender							
Sl. No.	Sub-regions/ Blocks	Gender	Number of Workers	% of Workers	Religion	Number of Workers	% of Workers
1.	Chandipur CD Block	Male	5319	49.5	Hindu	3374	36.4
		Female	5426	50.5	Muslim	5896	63.6
2.	Bhagwanpur-I CD Block	Male	6682	48.0	Hindu	4183	34.5
		Female	7238	52.0	Muslim	7942	65.5
3.	Bhagwanpur-II CD Block	Male	5101	58.5	Hindu	3739	48.5
		Female	3619	41.5	Muslim	3971	51.5
4.	Total	Male	15135	52.0	Hindu	11585	39.8

	Female	13970	48.0	Muslim	17520	60.2
Grand Total		29105	100.0	Grand Total	29105	100.0

Source: Compilation of Primary and Secondary Data, 2019-'20 & 2021

BLOCK WISE WORKERS (BASED ON GENDER) ENGAGED IN HUMAN HAIR BUSINESS

[Chandipur-Bhagwanpur Region, Purba Medinipur, West Bengal, India- 2020]

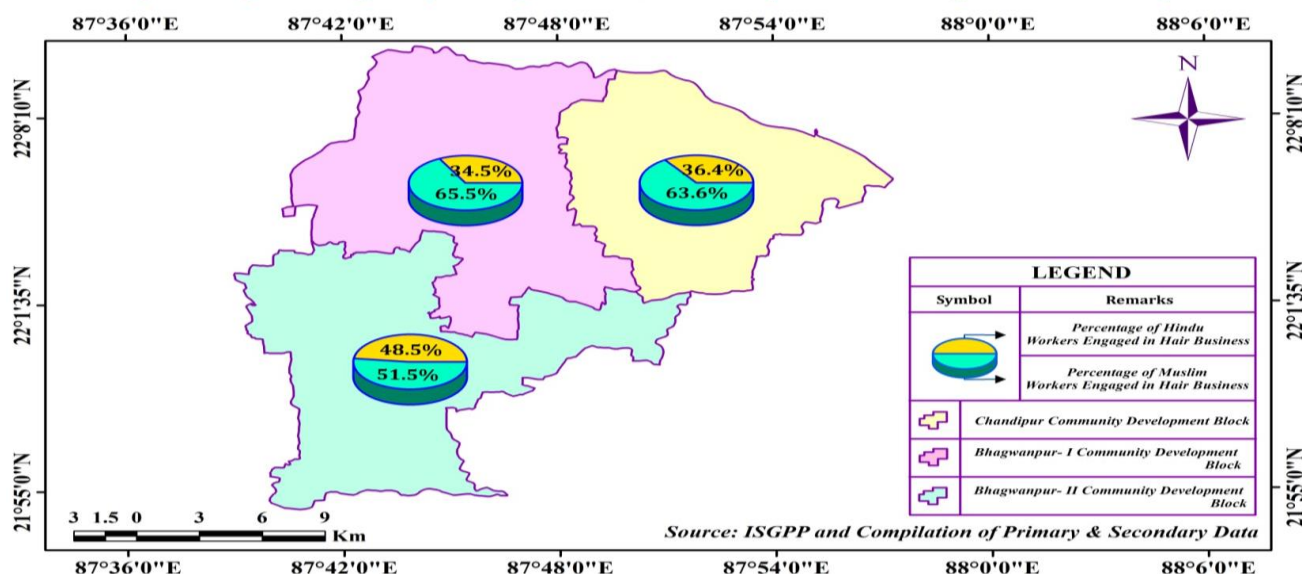


Map 7: Block and Gender wise distribution of workers engaged in Hair Business at the Study Area

The surveyed report and compiled data reveals that male and female workers are activated head by head in this unorganized economic sector where 48% of the workers are female. On the other hand, from the religious point of view, about 40% workers are Hindu where Muslim is the dominant character here.

BLOCK WISE WORKERS (BASED ON RELIGION) ENGAGED IN HUMAN HAIR BUSINESS

[Chandipur-Bhagwanpur Region, Purba Medinipur, West Bengal, India- 2020]



Map 8: Block and Religion wise distribution of workers engaged in Hair Business at the Study Area

6.4 Types of works performed by workers in hair business:

Sl. No.	Types of Works	Number of Workers	% of Workers	Number of Sample Workers	% of Sample Workers
1.	Collection of Hair from Rural Areas	355	1.2	45	1.5
2.	Collection of 'Guli'/ Ball Hair	4105	14.1	175	5.8
3.	Hair Arrangement and Shortening (Chul Chharano)	7985	27.4	790	26.0
4.	Clipping/ Snipping (Kanchi Kora)	4985	17.1	465	15.3
5.	Washing & Drying	5710	19.6	940	31.0
6.	Fencing & Packaging (Binding)	2520	8.7	270	8.9
7.	Collection by Agent	790	2.7	155	5.1
8.	Doubling	2140	7.4	150	4.9
9.	Marketization & Related Activities	515	1.8	45	1.5
	Total	29105	100	3035	100

Source: Compilation of Primary and Secondary Data, 2019-'20 & 2021

The above data table and diagram exhibits the types of different works performed by workers in hair processing and business. Here, it should be notified that hair arrangement and shortening, clipping/ snipping, and washing and drying the hair, these three important activities are mostly done by female workers whereas others are performed by male workers mainly.

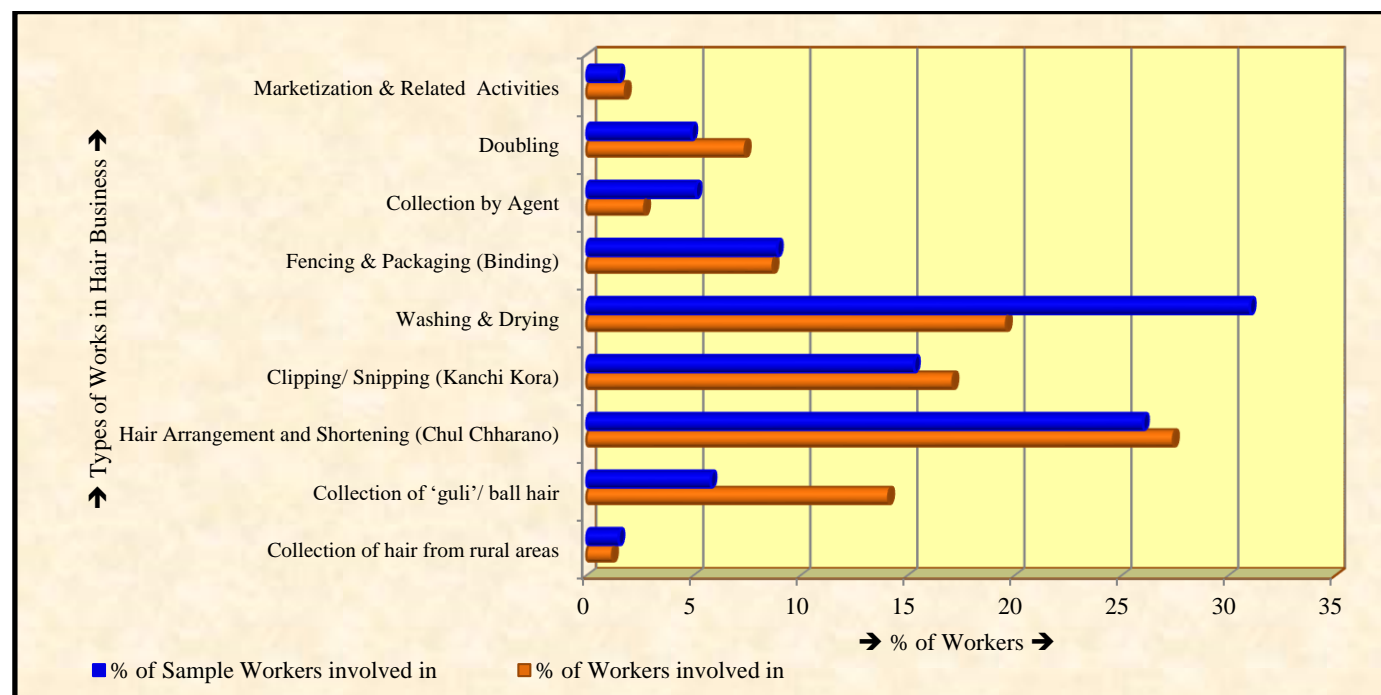


Figure 1: Types of works performed in hair business

6.5 Major causes for coming in this work:

Sl. No.	Major Causes	Number of Workers	% of Workers
1.	More Income-More Profit than Other Works	634	20.8
2.	Employment Opportunity	891	29.4
3.	Home Employment Opportunity	522	17.2
4.	Poverty Reduction	330	10.9
5.	Standing as the Side Economy rather than Other Occupation	142	4.7
6.	For Strengthening the Family Income & Support	334	11.0
7.	For Increasing the Socio-economic Status	182	6.0
	Total	3035	100.0

Source: Compilation of Primary and Secondary Data, 2019-'20 & 2021

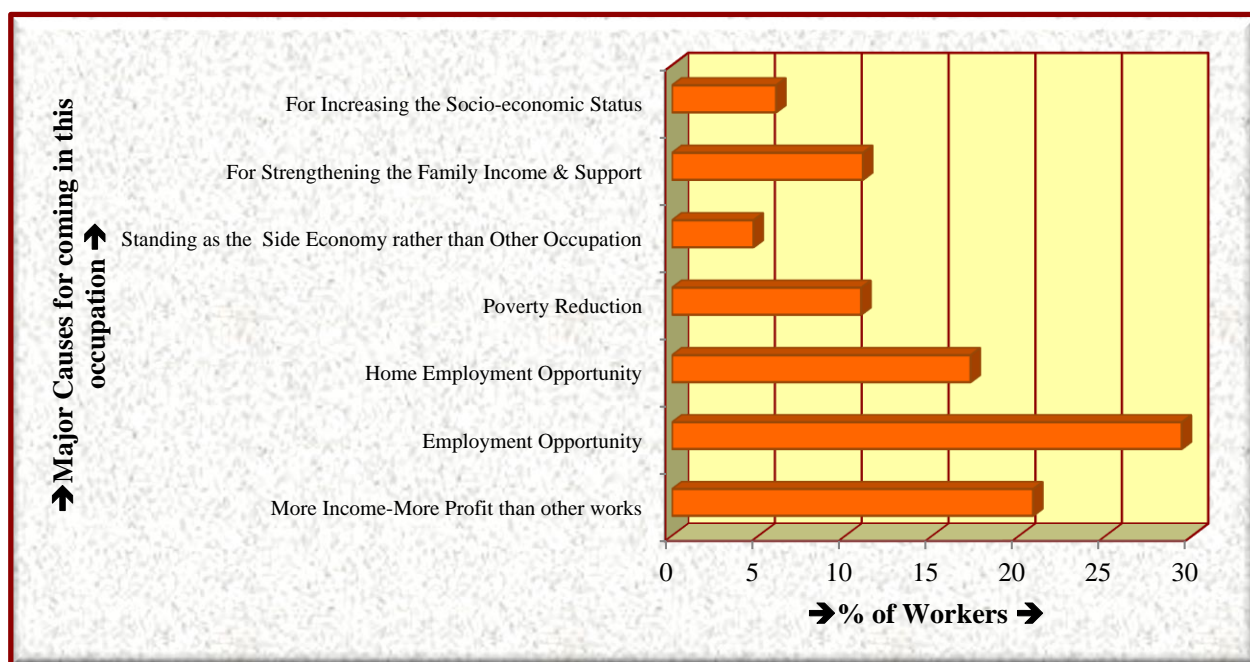


Figure 2: Major causes for coming in this work

The data table 7 and figure 2 reflect the major causes for coming in such type of hair related works in the study area. The collected data shows that 21% are coming in this activity for more income and more profit whereas 29% are for employment opportunity, 17% are of domestic employment opportunity, 11% have come here for family income and support eventually and 6% are engaged in this for increasing their socio-economic status. Home and external employment opportunities are also important to choose such works related to hair.

6.5 Ages of workers engaged in Hair Business:

Table 8: Ages of workers engaged in Hair Business			
Sl. No.	Stages of Life	Number of Workers	% of Workers
1.	Childhood Phase (8-12 yrs.)	106	3.45
2.	Adolescent Phase (12-16 yrs.)	363	11.96
3.	Early Young Phase (16-22 yrs.)	578	19.04
4.	Young Phase (22-28 yrs.)	612	20.16
5.	Late Young Phase (28-32 yrs.)	519	17.10
6.	Mature Phase (32-45 yrs.)	447	14.73
7.	Late Mature Phase (45-55 yrs.)	245	8.07
8.	Older Phase (>55 yrs.)	165	5.44
	Total	3035	100.00

Source: Compilation of Primary and Secondary Data, 2019-'20 & 2021

The above data table reflects the ages of workers involved in hair business. Interestingly, most of them are coming from their childhood, adolescent, early young and young stages of life. A little portion of them is engaged in it from their late mature or older stage. All aged people have got the opportunity to draw the income and establish themselves smoothly in their livelihood. Emigration from the locality has been drastically reduced due to the development of this life earning platform in broad scale. Although, this manufacturing or industrial sector is absolutely unorganized, household based employment scope and opportunity have been emphasized to spread out this process in the study area.

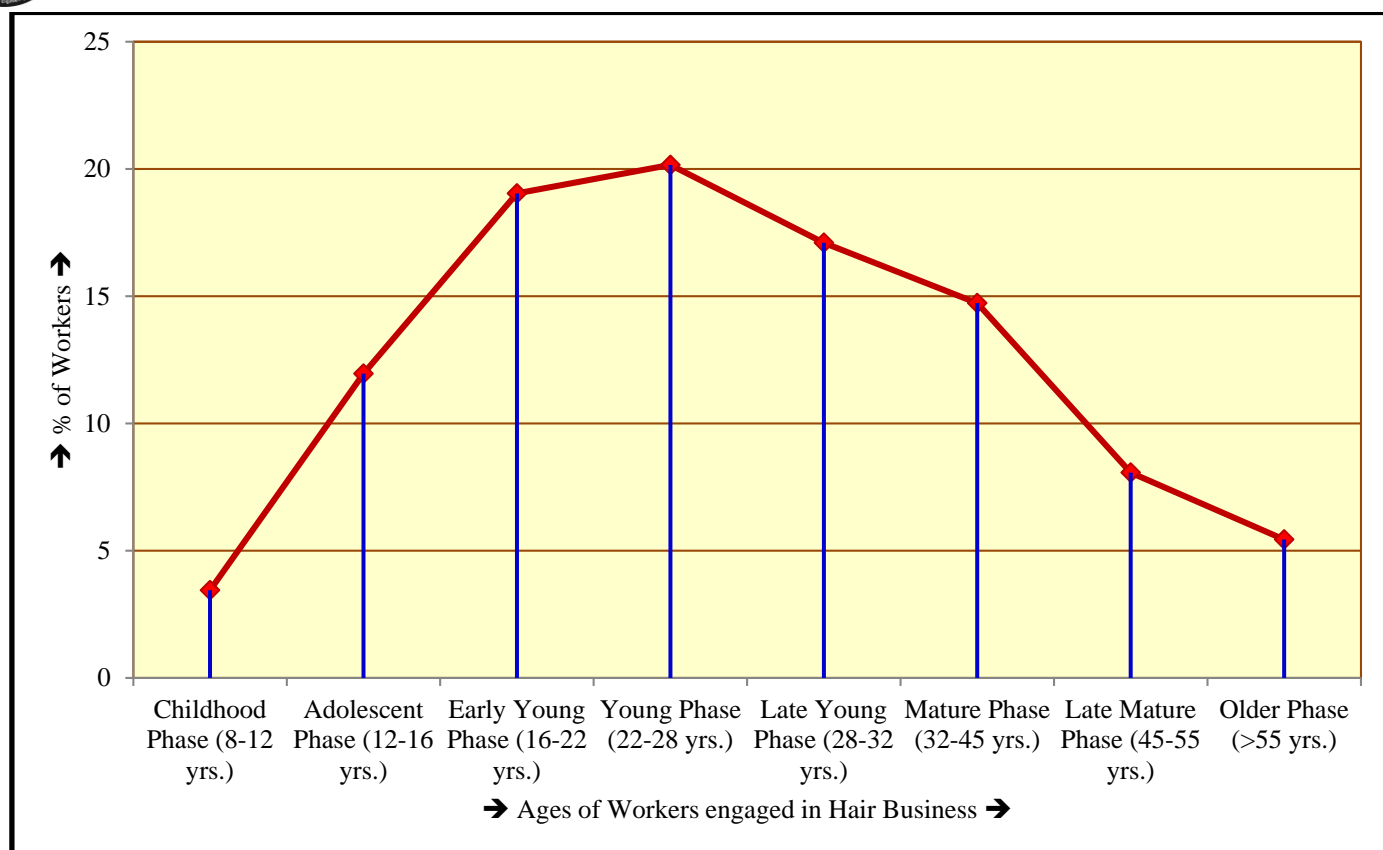


Figure 3: Ages of workers engaged in hair processing and business

6.6 Major socio-economic benefits from human hair business in the study area:

Table-9: Magnitude of Impacts for Hair Business as per Responses from the Household & Workers

Table-9: Magnitude of Impacts for Hair Business as per Responses from the Household & Workers															
Sl. No.	Residential & Economic Impacts	Number & % of Responses on the Causes													
		Number of Response on Magnitude							% of Response on Magnitude						
		Very High	High	Moderate	Low	Very Low	No Comment	Total	Very High	High	Moderate	Low	Very Low	No Comment	Total
1.	Development of Residential/Building Infrastructure	659	555	774	744	528	79	3035	21.7	18.3	25.5	24.5	17.4	2.6	100
2.	Increase in Family & Per-capita Income	995	1011	422	264	243	100	3035	32.8	33.3	13.9	8.7	8.0	3.3	100
3.	Reducing Poverty	810	1011	404	325	404	82	3035	26.7	33.3	13.3	10.7	13.3	2.7	100
4.	Saving Opportunity	416	507	689	607	707	112	3035	13.7	16.7	22.7	20.0	23.3	3.7	100
5.	Increase in Other Property/Side Business	404	507	507	1093	325	203	3035	13.3	16.7	16.7	36.0	10.7	6.7	100
6.	Increase in the use of Modern Amenities	607	810	1011	203	313	91	3035	20.0	26.7	33.3	6.7	10.3	3.0	100
7.	House hold Employment Opportunity	416	920	889	495	222	100	3035	13.7	30.3	29.3	16.3	7.3	3.3	100
8.	All Aged Occupation	737	789	404	628	203	273	3035	24.3	26.0	13.3	20.7	6.7	9.0	100
9.	Alternatives of Agriculture & Aquaculture	910	607	404	507	404	203	3035	30.0	20.0	13.3	16.7	13.3	6.7	100
10.	Local Occupational Opportunity Reducing Emigration	607	810	507	707	303	100	3035	20.00	26.7	16.7	23.3	10.0	3.3	100
Source: Compilation of Primary and Secondary Data, 2019-'20 & 2021															

Source: Compilation of Primary and Secondary Data, 2019-'20 & 2021

The above table shows the major residential and economic impacts of the hair business and related activities in the

study area. Most of these impacts are positive from the view point of socio-economic and infrastructural development of locality. With the help from hair business and related activities, the people have been strengthened economically reducing their poverty, promoting their monthly and per capita income, increasing the socio-economic demands, creating a home based platform for job and income opportunity, participating almost all aged people in life earning way, developing the infrastructural dimensions recovering past deterioration, making the scope of savings opportunities for near or far future, drawing another scope to establish side/ support economy, etc.

Sl. No.	Table-10: Monthly income of the sample workers in study area		
	Monthly Income (Rs./-)	Number of Workers	% of Workers
1.	<3000	249	8.2
2.	3000-6000	349	11.5
3.	6000-9000	385	12.6
4.	9000-12000	546	18.0
5.	12000-15000	337	11.1
6.	15000-18000	319	10.5
7.	18000-21000	288	9.5
8.	21000-24000	169	5.6
9.	24000-27000	182	6.0
10.	27000-30000	112	3.7
11.	30000-33000	66	2.2
12.	≥ 33000	33	1.1
	Total	3035	100.0

Source: Compilation of Primary and Secondary Data, 2019-'20 & 2021

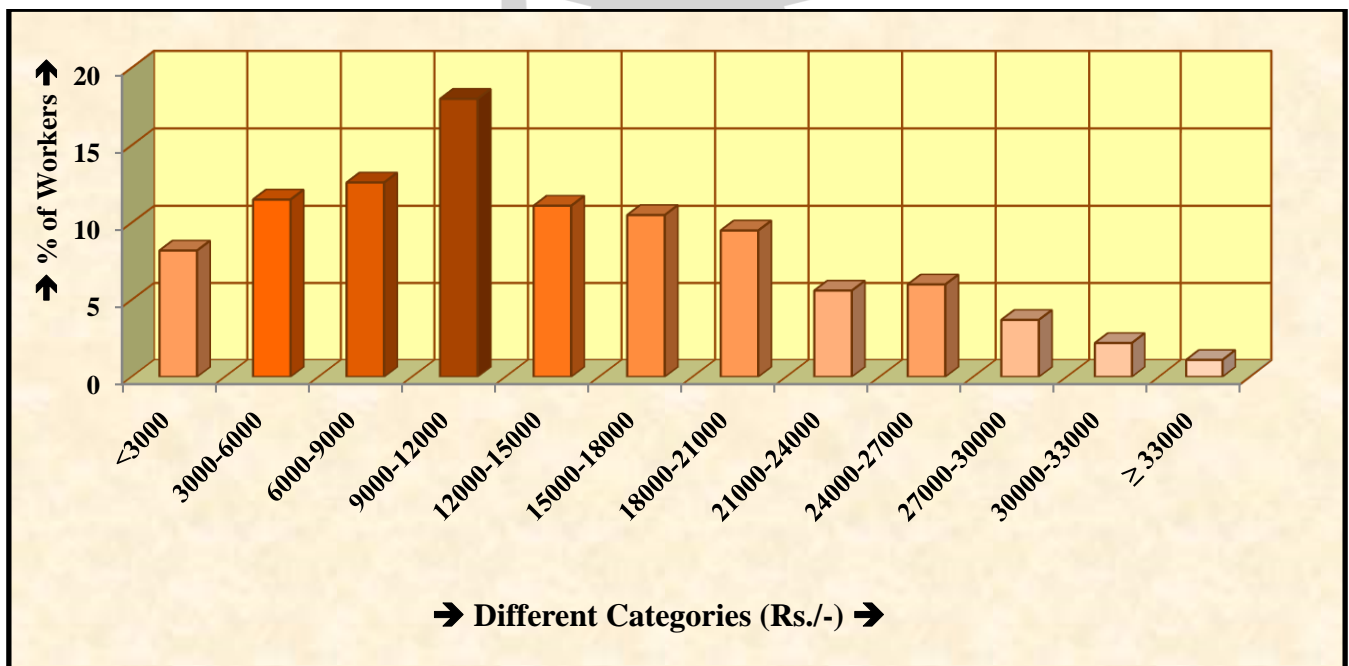


Figure 4: Monthly income of the sample workers in study area

The above table and figure draw the monthly income scenario of the engaged workers in hair related activities in the study area. It is seen that most of the workers (68%) draw their wages above Rs. 9000/- per month which is comfortable to run up the smooth socio-economic journey in life whereas about 32% of workers are marginal from the view point of monthly income. But, since most of the workers are featured by more income from this occupation due to parallel engagement in different activities of hair processing, manufacturing and business, they are more interested to involve in this occupation than others like agriculture, aquaculture, etc.

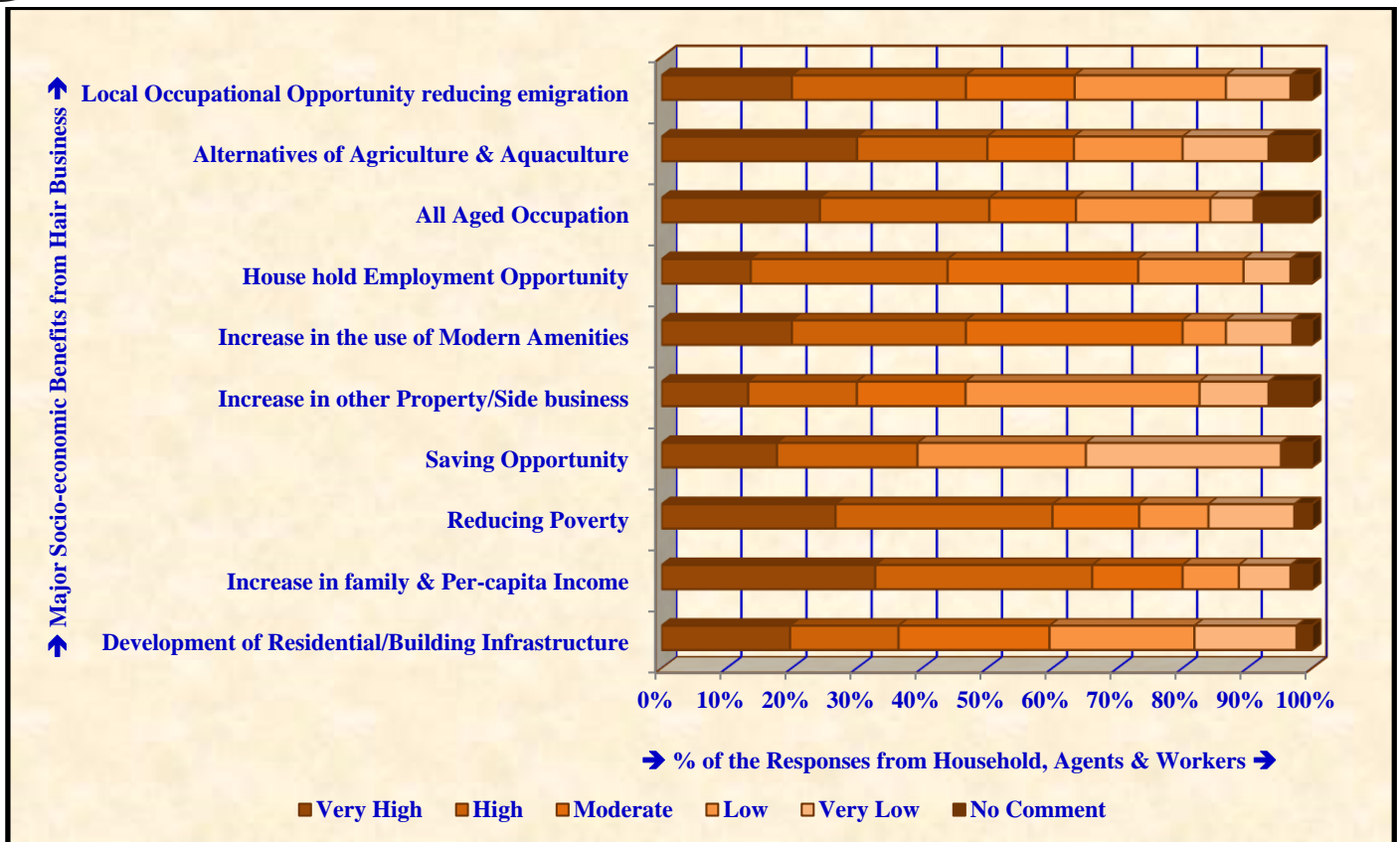


Figure 5: Major socio-economic benefits from human hair business in the study area

6.7 Major socio-cultural benefits from human hair business in the study area:

Table 11: Major socio-cultural benefits from human hair business in the study area

Table 11: Major socio-cultural benefits from human hair business in the study area															
Sl. No.	Socio-cultural Impacts	Number & % of Responses on the Socio-cultural Impacts													
		Number of Response on Magnitude							% of Response on Magnitude						
		Very High	High	Moderate	Low	Very Low	No Comment	Total	Very High	High	Moderate	Low	Very Low	No Comment	Total
1	Increase in Social/Cultural Status/Demands	759	892	789	313	191	91	3035	25.0	29.4	26.0	10.3	6.3	3.0	100
2	Increase in Health & Education Expenditure	740	889	589	486	261	70	3035	24.4	29.3	19.4	16.0	8.6	2.3	100
3	Increase in Self-sufficiency & Reliability of women in Family	707	935	810	198	279	106	3035	23.3	30.8	26.7	6.5	9.2	3.5	100
4	Increase in Higher Standard of Living	589	932	750	404	260	100	3035	19.4	30.7	24.7	13.3	8.6	3.3	100
5	Increasing Trend to be Modernize Consuming Modern Amenities and Services	850	910	607	405	202	61	3035	28.0	30.0	20.0	13.3	6.7	2.0	100
6	Increasing Trend of Child-Women-Older Care in Family	889	589	744	455	291	67	3035	29.3	19.4	24.5	15.0	9.6	2.2	100
7	Increase in Socio-cultural Participation & Activities	810	571	722	501	340	91	3035	26.7	18.8	23.8	16.5	11.2	3.0	100
Source: Compilation of Primary and Secondary Data, 2019-'20 & 2021															

Source: Compilation of Primary and Secondary Data, 2019-'20 & 2021

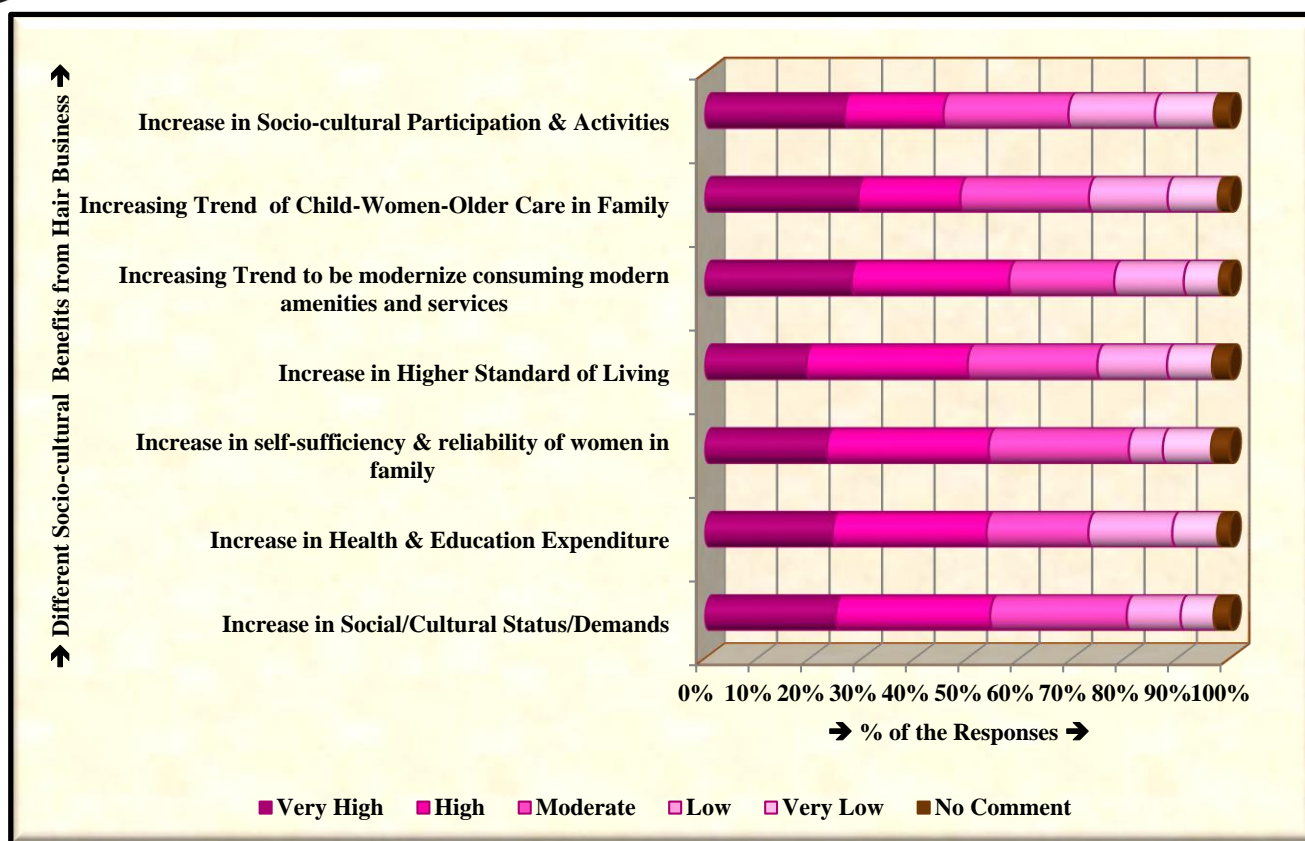


Figure 6: Socio-cultural Impacts of Hair Business

The above prepared table and diagram indicates the socio-cultural benefits and its magnitude as per Likert Scale of qualitative research. The result sheet reflects some positive aspects of socio-cultural development in the study area. Through the involvement in hair business, the people have been featured by increasing socio-cultural demands in their daily life, increasing trend towards consuming modern amenities, increasing health and education related expenditure having special care to child and older persons in the family, higher standard of living, growing trend towards modernization, increasing trend to socio-cultural participation, interaction and activities, etc.

VII. Assessment of Socio-economic Impacts on Hair Business due to Global Covid-19 Outbreak:

7.1 Estimation and assessment of the employment and job crisis and uncertainty due to COVID-19 outbreak in the study area:

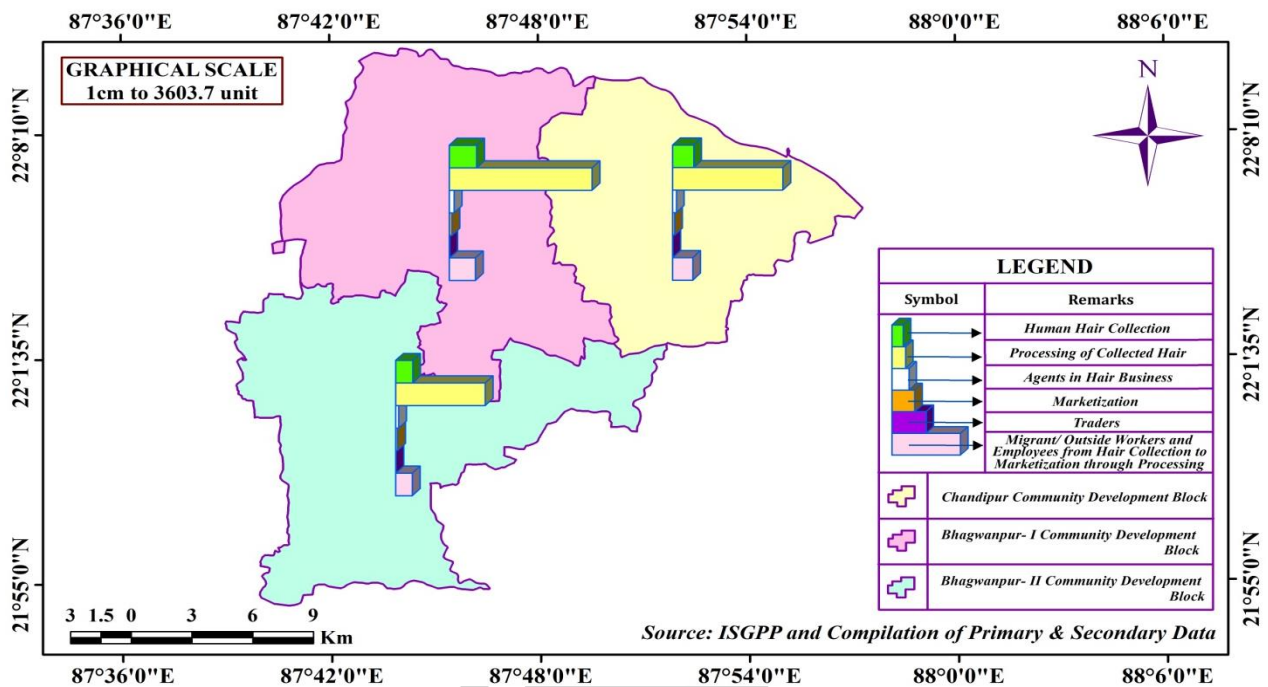
Table-12: Estimated Number of Employees/ Workers faced on Job Crisis and Uncertainty						
Sl. No.	Name of Different Sectors Related to Hair Business	Estimated Number of Workers				% of Workers
		Chandipur CD Block	Bhagwanpur-I CD Block	Bhagwanpur-II CD Block	Total	
1.	Human Hair Collection	1440	1865	1155	4460	13.4
2.	Processing of Collected Hair	7511	9730	6099	23340	69.9
3.	Agents in Hair Business	258	334	198	790	2.4
4.	Marketization	140	181	129	450	1.3
5.	Traders	21	28	16	65	0.2
6.	Migrant/ Outside Workers and Employees from Hair Collection to Marketization through Processing	1375	1782	1123	4280	12.8
	Total	10745	13920	8720	33385	
	% of Workers	32.2	41.7	26.1	100.0	
About 87% employees/ workers is regional (within the District) and about 13% is outsiders or immigrant in nature w.r.t. the region.						
Source: Data Compilation of Institutional Reports and Previous Survey and Project Reports done by the Authors, 2019-'20 & 2021						

The data table indicates the employment and job crisis and uncertainty due to COVID-19 outbreak in the study area. The pandemic affects employment of about 33400 regional and outside workers who have severely faced on the job crisis and economic insecurity from this occupation. Mostly young and active generation who are the backbone of influenced families,

have been affected tremendously.

BLOCK WISE ESTIMATED WORKERS FACED ON JOB CRISIS & UNCERTAINTY DUE TO COVID-19 BLAZE IN THE STUDY AREA

[Chandipur-Bhagwanpur Region, Purba Medinipur, West Bengal, India- 2020]



Map 9: Block wise Employees/ Workers faced on Job Crisis and Uncertainty

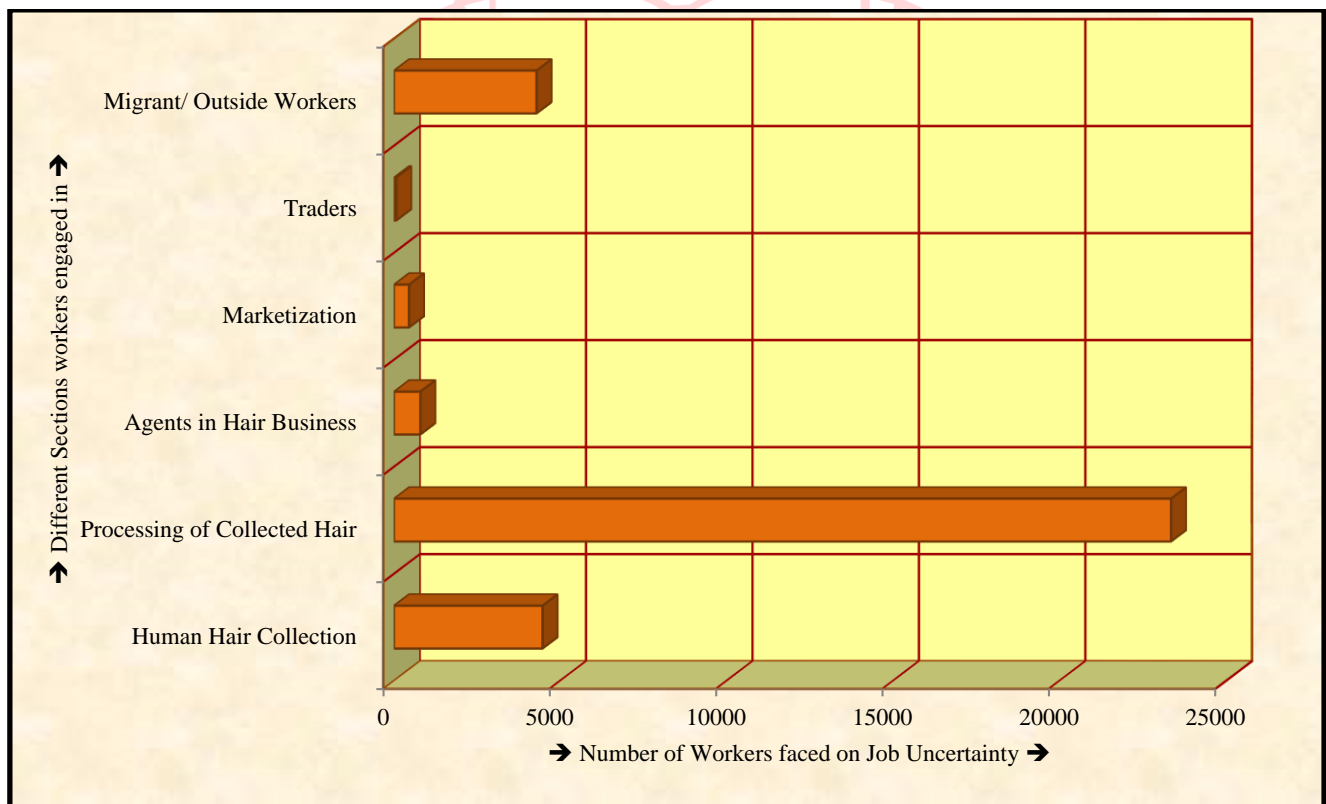


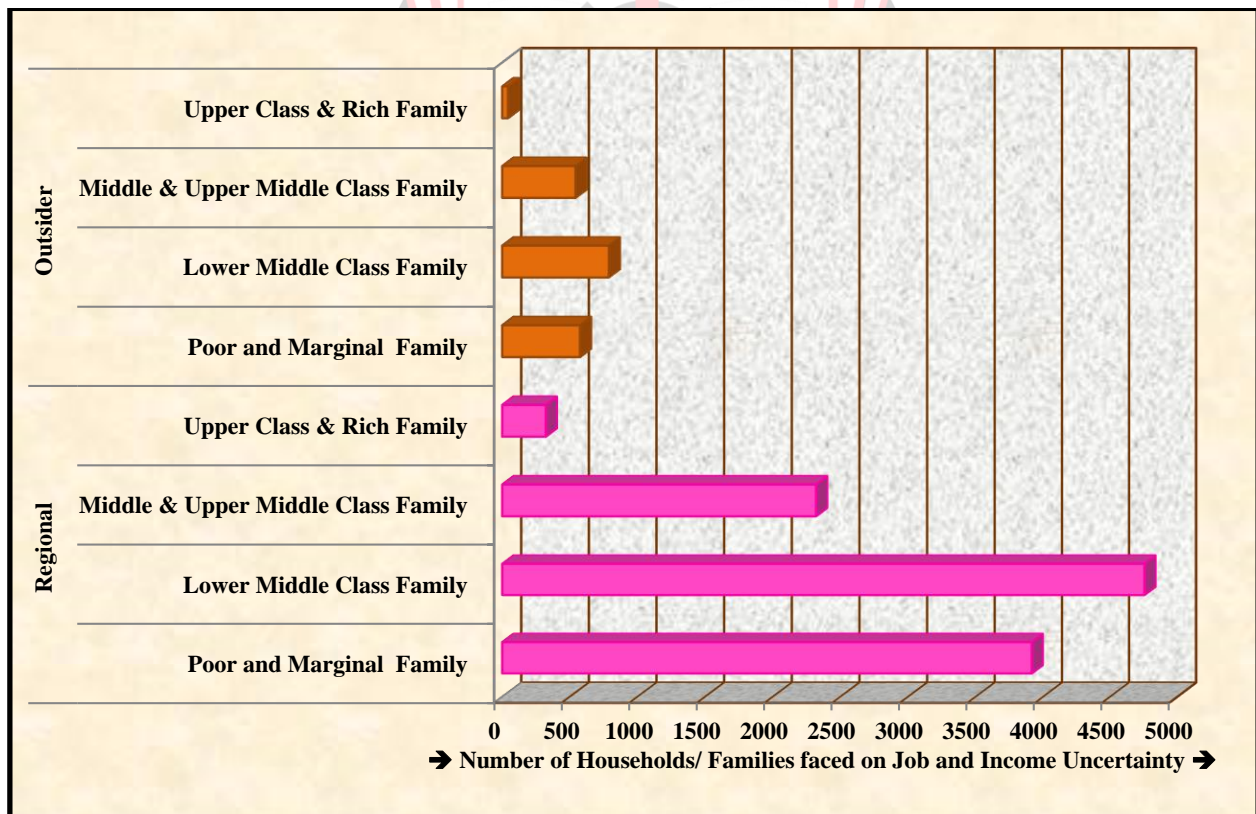
Figure 7: Employees/ Workers faced on Job Crisis and Uncertainty

7.2 Estimation and assessment of the affected households due to the impacts of COVID-19 outbreak in the study area:

Table-13: Estimated Number of Households affected by Job and Income Uncertainty							
Sl. No.	Regional Status of Households/ Family	Name of Different Sectors Related to Hair Business	Sub-regions			Estimated Number of Families/ Households	% of Families/ Households
			Chandipur	Bhagwanpur-I	Bhagwanpur-II		
1.	Regional	Poor and Marginal Family	1208	1719	988	3915	34.6
		Lower Middle Class Family	1466	2087	1199	4752	42.0
		Middle & Upper Middle Class Family	715	1018	585	2318	20.5
		Upper Class & Rich Family	101	144	83	328	2.9
		TOTAL	3490	4968	2855	11313	100.0
2.	Outsider	Poor and Marginal Family	157	252	166	575	29.5
		Lower Middle Class Family	263	356	170	789	40.5
		Middle & Upper Middle Class Family	164	230	147	541	27.8
		Upper Class & Rich Family	15	17	11	43	2.2
		TOTAL	599	855	494	1948	100.0
		Grand Total				13261	
Source: Data Compilation of Institutional Reports and Previous Survey and Project Reports done by the Authors , 2019-'20 & 2021							

Source: Data Compilation of Institutional Reports and Previous Survey and Project Reports done by the Authors , 2019-'20 & 2021

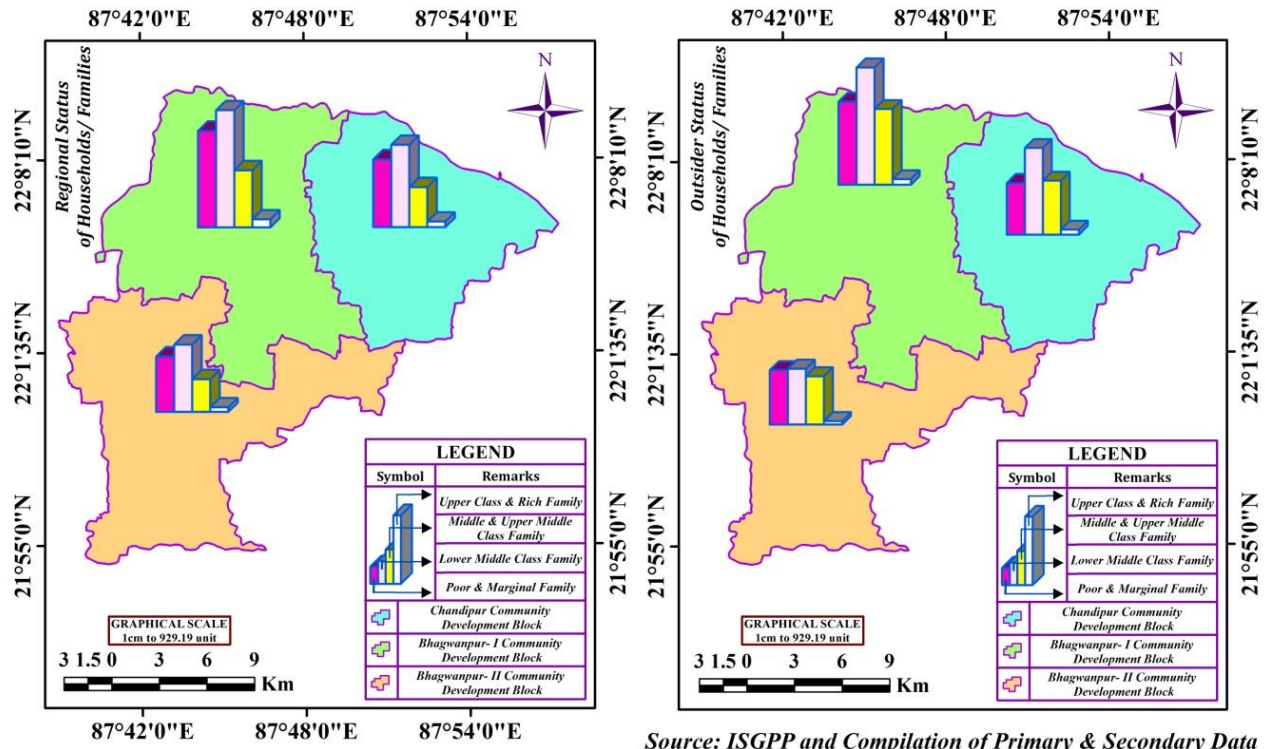
The above data table and following figure confirm the affected households engaged in hair business in the study area. Deadly situation of corona spread out throughout the globe and nation affects 13261 rural and rurban households in the region which are incorporated in regional informal hair industry. Among the households, 11313 is of local where 1948 is from outside. Comprehensively, these households influence the uncertain life and livelihood of about 60000 of demographic figure where 52000 is local and 9000 outside population



Map No.-8: Households affected by Job Crisis and Uncertainty

BLOCK WISE ESTIMATED HOUSEHOLDS AFFECTED BY JOB & INCOME UNCERTAINTY DUE TO COVID-19 BLAZE IN THE STUDY AREA

[Chandipur-Bhagwanpur Region, Purba Medinipur, West Bengal, India- 2020]



Map No.-10: Block wise households affected by Job Crisis and Uncertainty

7.3 Estimation and assessment of the economic shock due to the COVID-19 outbreak in the study area:

Table-14: Estimated Economic Loss of the Human Hair Business in the Study Area

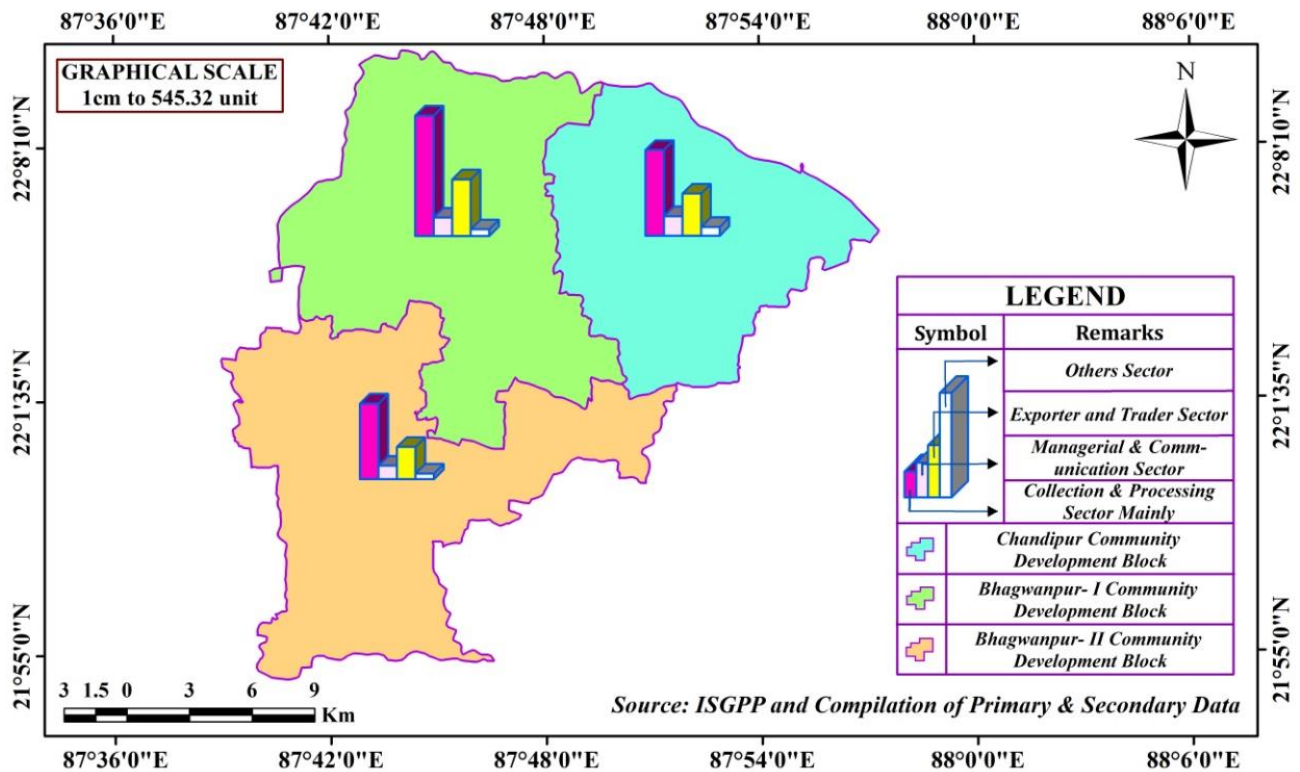
Sl. No.	Name of Different Sectors Related to Human Hair Business	Sub-regions			Estimated Income Loss (Rs./- in lakh)	
		Chandipur	Bhagwanpur-I	Bhagwanpur-II	Monthly	3-Months of Lockdown & Slow down Situation
1.	Loss due to 'No Work-No Pay' for (27800 workers) in Case of Collection and Processing Sector Mainly	853.22	1199.70	752.12	2805.04 (58.1)	8415.12
2.	Managerial and Communication Sector (Agents, Marketization, etc. Segments are Included Here.)	194.79	183.41	133.57	511.77 (10.6)	1535.31
3.	Exporter and Trader Sector	419.74	563.58	320.23	1303.55 (27.0)	3910.65
4.	Others	86.85	66.57	54.18	207.60 (4.3)	622.80
	Monthly Total (Rs./- in lakh)	1554.60	2013.26	1260.10	4827.96 (48.28 crores)	-
	3-Months of Lockdown & Slow down Situation (Rs./-)	4663.80	6039.78	3780.3	-	14483.88 (144.84 Crores)

Source: Data Compilation from Project Report, Research Work, Institutional Reports , Surveys and Target Specific Interviews, 2021

The above data table based on long term survey and perception study reflects the estimation and assessment of economic loss/ shock in hair business in the study area. 3-month basis analysis estimates highest 60.4 crores capital loss in Bhagwanpur-I sub-region followed by 46.6 crores in Chandipur and 37.8 crores in Bhagwanpur-II sub-regions. Total economic loss in the region is about 144.8 crores rupees having the gigantic figure damaged done by global corona outbreak.

BLOCK WISE ESTIMATED ECONOMIC LOSS OF THE HUMAN HAIR BUSINESS DUE TO COVID-19 OUTBREAK IN THE STUDY AREA

[Chandipur-Bhagwanpur Region, Purba Medinipur, West Bengal, India- 2020]



Map No.-11: Block wise Estimated Economic Loss of the Human Hair Business in the Study Area

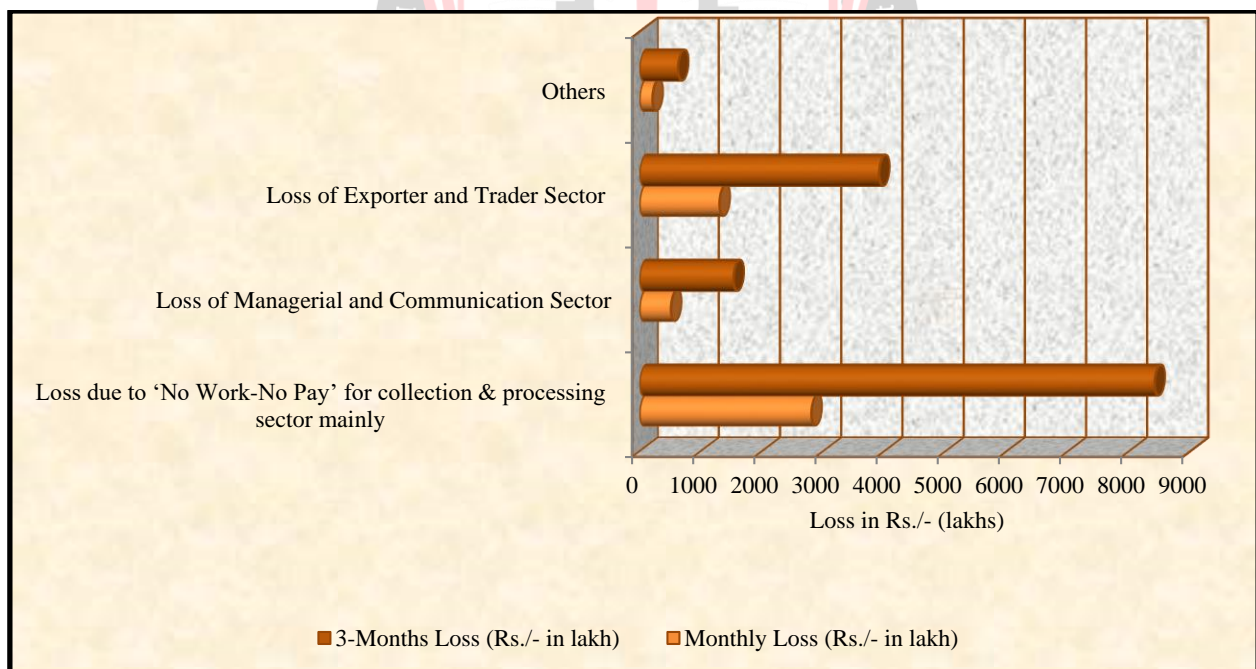


Figure 9: Estimated Economic Loss of the Human Hair Business in the Study Area



Images related to the Hair Business



Source: Bartaman Patrika, 22.06.2020, You Tube News Version & ABP News, 2020 (News on the Economic Uncertainty in Human Hair Business due to COVID-19 outbreak in Purba Medinipur) [1] [29]

7.4 Social impacts due to the covid-19 outbreak in the study area:

1. The impact of the pandemic is visible across the sectors, but its impact on marginalized sections, women and children related to hair business has been immense in this area. This crisis is going to affect economy as never before leading to massive psycho-social impacts as well.
2. Women are at greater risk from both the physical and mental health perspectives. Homes which were already unsafe along with families living in poor and substandard conditions have added on to the social inequities like gender-based violence and child abuse, lack of security, money and health. [12]
3. Resource limitations for women has brought in a situation where women tend to neglect their own requirements while prioritizing life and budgets of others in the family and issues like menstrual hygiene, mental health and her nutrition do not feature in the list of priority. [4]
4. Social stress caused by lockdown has many faces and reasons resulting from travelling restrictions and disruption of cultural celebrations, limited healthcare facilities and interruption in regular immunizations in hospitals leading to anxiety and fear among the population, social distancing with friends and family, closure of places of entertainment and leisure. [12]
5. The stigma of religious hatred, caste based discrimination is dangerous to humanity where the less informed and biased media as well as people with vested interests tried to damage the social fabric of the area and left a big social impact in the fight against corona virus.
6. The issues of health, the rapid decline of economy, shortage of medicines, sanitizers, masks, and other essentials, poverty, unemployment has undoubtedly taken centre stage and each has left a mark on the lives of people.
7. Health and education related expenditure and special care towards child, women and older section of the family has been obstacle due to unexpected sudden job loss.
8. Conflict and fragmentation in kinship relations are also the outcome in the marginal and lower class households due to uncertain economic baseless situation in life earning way.
9. While upper class and upper caste people are able to create a safety net around them, the daily wage earners are victimized by the harsh social distancing provisions in the absence of adequate social safeguards. Social locations of the marginalized classes results in more oppression and exploitation without intersecting endeavours and understanding of the nature of continuous process of social segregation. Therefore, the deep seated apathy towards the marginal sections hit hard by the widespread Covid-19 outbreak and will reproduce otherness among haves and

have-nots.

10. Bottlenecked situation of early young and young generation engaged in hair business draws increasing anxiety and depression in them due to loosening the job, declining the income opportunity and not full filling their socio-cultural demands.

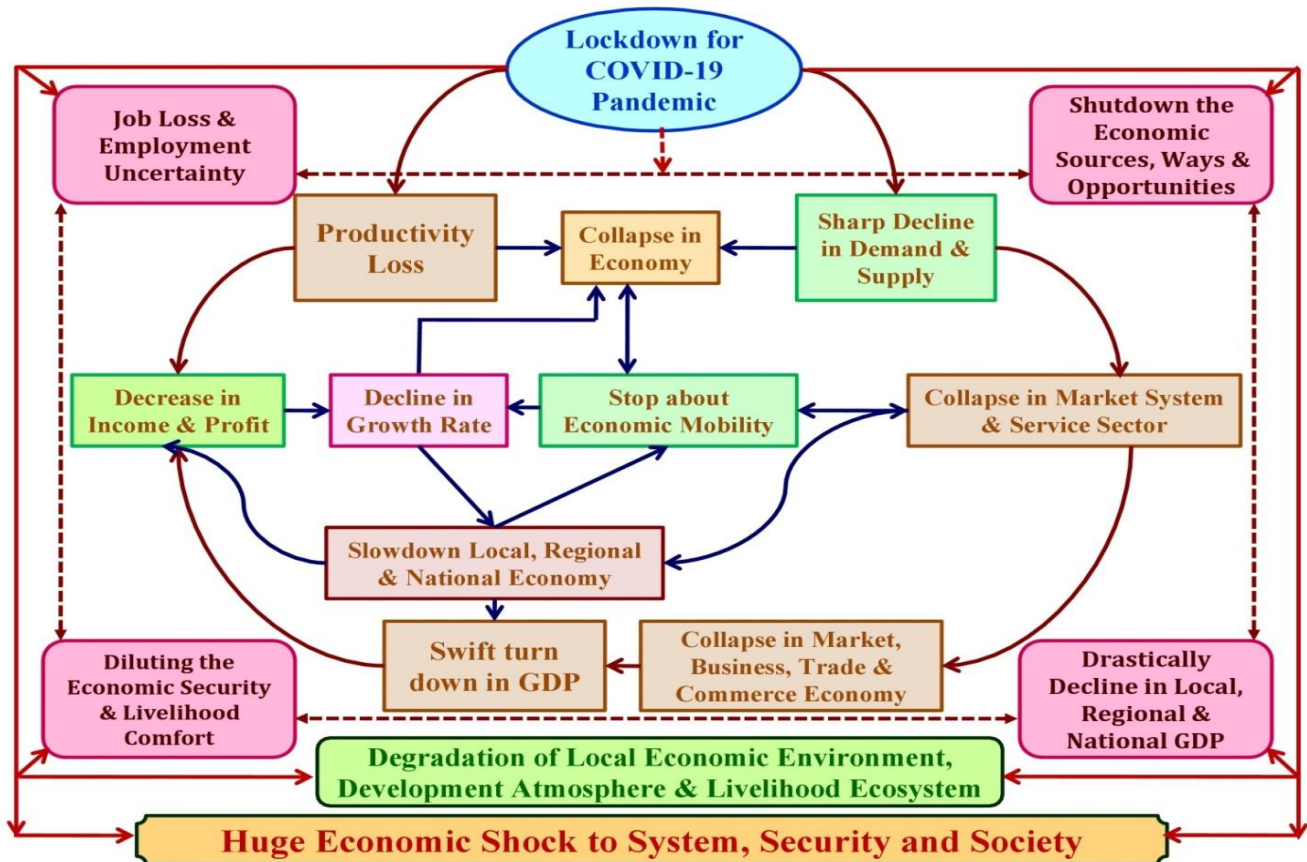


Figure 10: State of Economic Shock to the System, Security and Society in the COVID Environment [7] & [8]

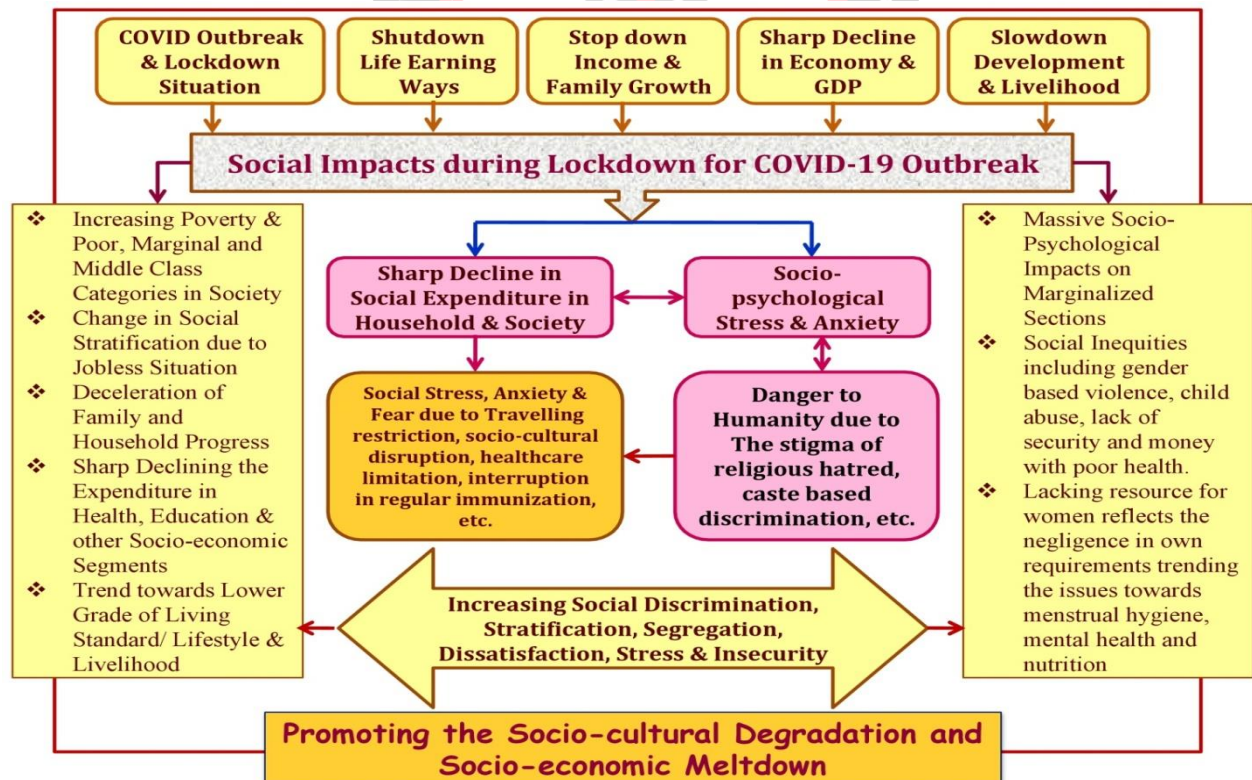


Figure 13: Socio-cultural Degradation and Socio-economic Meltdown in terms of Social Impacts of COVID-19 Pandemic in the Study Area [7] & [8]

6.6 Assessment of Livelihood Vulnerability for COVID-19 Pandemic on Human Hair Business in the Study Area:

Table 15: Estimation of Livelihood Vulnerability Index (LVI) in the Study Area

Table 15: Estimation of Livelihood Vulnerability Index (LVI) in the Study Area						
Dimension	Factors	Experimental Weightage	Perception Weightage	Gravity Score	Dimension Specific Vulnerability Indices	Livelihood Vulnerability Index (LVI)
Demographic Exposure	Childhood/ Immature Marriage in the Community	4.0	3.96	3.98	Demographic Exposure Specific Vulnerability Index (DESVI) = 0.6888	LVI = 0.7289 (72.89%)
	Domestic Conflict and diluting family relation due to ‘no income’	3.5	3.84	3.67		
	Increasing birth rate in time & house blocked population growth	3.0	2.93	2.97		
	Relational degradation & trend to divorce	2.5	2.51	2.51		
	Increasing youth emigration	4.0	4.18	4.09		
Residential Aspects	Obstacles in constructing residential infrastructure	3.5	3.61	3.56	Residential Aspect Specific Vulnerability Index (RASVI) = 0.7800	
	Declining expenditure in household infrastructure and facilities	4.0	4.48	4.24		
Economic Dimension	Drop down in global market and uncertainty in regional/ local markets	4.0	4.56	4.28	Economic Dimension Specific Vulnerability Index (EDSVI) = 0.7669	
	Loosening job/ occupation	3.5	3.58	3.54		
	Acute uncertainty and crisis in job	3.5	3.68	3.59		
	No scope to export the processed and manufactured hairs	3.5	3.66	3.58		
	Absolute decline in income	4.0	4.38	4.19		
	Remarkable decline in expenditure and livelihood status	4.0	4.31	4.16		
	Loosening of domestic/ community occupation and economic base	4.0	4.28	4.14		
	Increasing poverty	3.5	3.84	3.67		
	Declining the livelihood/ socio-economic status	3.0	3.71	3.36		
Socio-cultural Dimension	Declining expenditure in health, education and other socio-cultural cases	3.5	4.04	3.77	Socio-cultural Dimension Specific Vulnerability Index (S-CDSVI) = 0.7104	
	Affecting health and special care to child, elderly and women in family	3.5	3.81	3.66		
	Affecting women empowerment loosening the job and dignity	4.5	4.32	4.41		
	Degrading family and also social relations	3.5	3.56	3.53		
	Increasing alcoholism and likely addictions	3.5	3.43	3.47		
	Disrupting youths from social values and addiction towards different mal-practices	3.5	3.01	3.26		
	Increasing crimes and anti-social activities	3.0	2.84	2.92		
	Loosening socio-cultural status and dignity	3.5	3.71	3.61		
	Increasing domestic violence	3.5	3.13	3.32		
	Bottlenecked social life with conflicts and chaos	3.5	3.63	3.57		
Psychological Dimension	Increasing depression, anxiety and isolation	4.0	4.06	4.03	Psychological Dimension Specific Vulnerability Index (PDSVI) = 0.7265	
	Loosening self-confidence and self-esteem	4.0	4.12	4.06		

	Feelings as helplessness and attempting to self-suicideness	3.0	3.58	3.29		
	Disrupting from main socio-economic stream & doing ill-behaviour at all	3.0	3.29	3.15		
Safety and security	Loosening food safety and security	3.0	3.28	3.14	Safety and Security Specific Vulnerability Index (SSSVI) = 0.6692	
	Loosening socio-economic security and comforts	3.5	3.53	3.52		
	Increasing socio-cultural insecurity	3.0	3.29	3.15		
	Feelings lacking of administrative and institutional security	3.5	3.43	3.47		
	Feelings poor to livelihood security	3.5	3.39	3.45		
Institution, Organization and Legislation	No proper Govt. or NGO incentives to reduce the costs in livelihood by pandemic	3.5	4.03	3.77	Institution, Organization and Legislation Specific Vulnerability Index (IOLSVI) = 0.7604	
	No special institutional schemes or subsidy for the concerned community	4.0	3.93	3.97		
	Poor and mal- actions from institution and organizations	3.5	3.93	3.72		
	No good institutional efforts to export the manufacturing or processed products	4.0	3.85	3.93		
	Poor administrative and institutional management for pandemic affected concerned community	3.5	3.73	3.62		
N.B.: LVI = below 20% = Low Vulnerability, LVI = 20-40% = Low to Moderate Vulnerability, LVI = 40-60% = Moderate to High Vulnerability, LVI = 60-80% = High to Very High Vulnerability & LVI = 80-100% = Very High to Absolute Vulnerability						
						Source: Field Survey, 2021 & Data Analysis

The above table 15 shows the estimation of livelihood vulnerability index for assessing the affected livelihood in the study area. From the compilation of collected qualitative data from perception survey on the target and focused characters and also researcher's own experimentation on 5-point Likert scale the index has been determined with respect to 40 responsible factors having equal weightage as 5. The Gravity Score has been averagely computed from estimated experimental weightage and perceived weightage from the respondents. The estimated indices shows that residential vulnerability is highest (78%) followed by economic vulnerability (76.69%), institutional, organizational and legislative vulnerability (76.04%), psychological vulnerability (72.65%), socio-cultural vulnerability (71.04%), demographic vulnerability (68.88%) and vulnerability from safety and security respectively. The final result indicates the Livelihood Vulnerability Assessment Index (LVI) as 0.7289 (72.89%) which is high to very high from the status of livelihood vulnerability. Hence, it's clear that huge negative impacts from COVID-19 pandemic draws a lot of costs to the livelihood of the communities intensively related to human hair business.

VIII. Major Findings

- ❖ Human hair business, this occupation is mainly Muslim community based (>60%) followed by Hindu (\cong 40%) having the dominancy of OBC-A and SC categories and less amount of unreserved section of caste structure.
- ❖ A large portion of workers engaged in hair processing is female (48%) since home employment opportunity and hair arrangement and shortening (chul chharano), clipping (kanchi kora), washing and drying, etc. are favourable and suitable for women workers.
- ❖ Age composition reflects that most of the population (56.3%) is young age (16-32 yrs.) whereas early young is about 19%. A remarkable portion (15.4%) of workers is of childhood and adolescent phase.
- ❖ Recently, hair business has been emerging as the base economy of the sample study area along with the agricultural activity.
- ❖ Most of the workers are domestic and local in nature.

- ❖ The human hair business is the unorganized and informal manufacturing and industrial economy.
- ❖ The main cause for coming in this work is mainly for more income-more profit through the local employment opportunity and smoothing and strengthening the socio-economic bases of the marginal and middle class families.
- ❖ Although, environmental costs and human costs in terms of socio-cultural, physiological and psychological degradations are the sizable drawbacks of this business, the short term economic benefits are very high than long term economic return in this business.
- ❖ **China** is the only importer of processed hair from this region. Due to uncertain exporting scope to Chinese importers, a huge quantity of cleaned and processed hair is now dumped in the godowns. Crores of rupees have been lost from this business for last few months only.
- ❖ Investigation shows that more than **60000 people (sixty thousands)** who were directly or indirectly employed in the human hair export business are now belonging in grave problem.
- ❖ **All of the agents, traders, and exporters** are also facing the hit due to lack of cash flows.
- ❖ The **lock down scenario** due to COVID-19 outbreak creates the **bottlenecked situation of livelihood** related to hair business. About 35000 (twenty to thirty thousands) people in **103 villages those** are directly and indirectly affected by this deadly situation. The engaged **local people** are in the *great risk of losing jobs from this regional occupation*.
- ❖ The region has been faced on the enormous economic loss of more than **145 crores** of rupees from this business.
- ❖ This is one of the worst crises to hit the hair business and it has impacted all its segments-inbound, outbound and domestic.
- ❖ The impact of the pandemic is visible across the sector, but its impact on marginalized sections, women and children has been immense in the area.
- ❖ Since it is informal and unorganized sector of economy, no remarkable efforts or role from administration and government are found here.
- ❖ COVID-19 driven livelihood vulnerability for the communities relating human hair business is very high in the study area.
- ❖ There was *no way to make up for the income already lost*, there is *no clear timeline for recovery at present* and there is a *big uncertainty and huge questions on and about the trend and future* of COVID-19 pandemic.

IX. Recommendation

- ❖ Steps should be taken to identify new markets for human hair and its products in European markets. [13]
- ❖ Although, there are huge prospects of hair manufacturing and business in hair harvesting, preparing molded furniture and objects, making suturing material in surgery, manufacturing oil filters, making composites for super conducting systems, making ropes, making cosmetic brushes, using as essentials in cosmetics industry, fashion and theatre, manufacturing fertilizers in agriculture, using in pest control, ethno-medicinal uses, hydrolyzed hair keratin in various hair care products by many hair oil companies, making composite material, etc.; these are not conventional in our India. Hence, the government should have to emphasize and develop the own hair manufacturing platform like European countries instead of China dependency.
- ❖ More than 20-30% people are dependent on relief given by the government and non- governmental organizations. Government should provide them some kind of job for their sustenance of livelihood.
- ❖ It is well-known that the informal sector contributes significantly to the economy in both output and employment but in crisis situation they become more vulnerable. Government should provide them immediate relief because they found themselves literally jobless overnight.
- ❖ Let every political party mobilizes its volunteers for distributing relief without considering any political colour.
- ❖ As social distancing has become a global buzzword in the wake of Corona virus pandemic, the privileged rich and upper middle class communities are responding to fit seamlessly whereas many marginalized groups are susceptible to potential harm.
- ❖ Government's economic relief package is too late and too little armed with short-sighted planning and no innovative ideas so far to deal with long-term livelihood crises may meet with large scale hunger deaths in the rural areas.

Hence, it is the moral duty of the government to protect the social vulnerabilities looming out of the social distancing measures. [28]

- ❖ As the chores across the country, "If we don't die of the corona virus, we will die of hunger" already started growing among the poor and unstable contract workers amidst safe distancing policies, the whole idea of social distance may fall through without adequately addressing the livelihood concerns of the have-nots of the region.
- ❖ Health interventions to those who are in need as well as prioritizing the focus on the social setbacks for a healthy start are of utmost importance.
- ❖ Policy response to the pandemic as well as health and contracted economy is the need of the hour.
- ❖ Reducing the psychological and social distress among people and promoting strategies to deal with the situation are required. [4]
- ❖ Institution and government should have to urgent find out the new pathway or alternative instead of China to export all the processed human hair in not only this region, but whole of the India.
- ❖ Govt. should have to play the important role for this informal sector and the uncertain life earning way of a lot of workers engaged in this occupation.
- ❖ Long term planning and collective efforts from individuals, communities, governments, national and international organizations to fight against this invisible deadly virus are needed.
- ❖ Taking the broad side of these scenarios, this paper suggests the following measures that the Government can take:
 - Managing the endemic and the resultant public health crisis through augmenting financial resources, increasing insurance coverage, and using technology solutions
 - Protecting income and employment, particularly for the more vulnerable sections of the society through implementing direct cash transfer programmes backed by adequate monitoring and evaluation mechanisms, and using existing digital payment infrastructure.
 - Supporting the sector to minimise adverse economic impact and facilitate quick recovery through immediate measures or medium-to-long measures.
 - State government should have to initiate innovative programmes to help the informal workers and the unemployed poor.
 - Given the widespread loss of jobs and incomes and no certainty about when the situation may normalise, the informal sector workers would need cash income support. It may be noted that some of the informal workers and other vulnerable groups do not have Jan Dhan accounts. These groups also need cash assistance. The optimal design of the cash transfer programme needs to be figured out in terms of targeted recipients, amounts, and duration. [16] [20] [9]
 - The nutrition levels of informal workers and the unemployed poor is low even before the crisis. It will decline further due to lack of jobs and incomes during lockdown and beyond. Therefore, there is a need to have pulses, oils, jiggery, etc. in ration shops to ensure a diversified diet for them. Anganwadis and schools can provide rations at home. Eggs can be added to improve nutrition for children and women. Government has to make sure that the prices of essential food items are under control. Otherwise high prices would have adverse impact on the food and nutrition security of the poor. [26] [14]

X. Conclusion

This perception-based study tried to visualize the stresses as well as the socioeconomic crisis in hair business and related livelihood due to the COVID-19 pandemic in Chandipur-Bhagwanpur region. Hair Business is one of important and emerging occupation as well as life earning way in the study area. With respect to low income and employment opportunity from agriculture and other sectors of economy and explosive population demands, this occupation is relevant and essential to the study area. Although, there are observed the agro-based economy as usual, recently, agriculture is not sufficient to fulfill the huge demands of marginal families and backward society also. In this perspective, hair business in the study areas may be the beacon to life earning to the inhabitants. The income and profit from this business are better than other existed economies promoting the socio-economic status of rural livelihoods gifting the easier job opportunity with household employment scope. But the above discussion reflects the huge human costs in terms of socio-economic shocks evolving from global outbreak of deadly corona virus which indicates its black-white journey in economic uncertainty and livelihood crisis. Hence,

there should be needed to consider the above mentioned recommendation for sustainable journey of this life earning way in the study area. In this perspective, it is very important now to protect the workers in the informal sector, who have been badly affected, and yet have little savings to tide them over the shock. Over and above the fiscal package that the central government has already announced, some more one-time relief measures for the informal sector workers may be considered. Govt. should have also the proper role for the recovery and conducting the regular but smooth journey of it since a large number of people of the study area as well as West Bengal and India are associated with this occupation for their life earning and comfort livelihood. Policy makers need to be prepared to scale up the response as the events unfold so as to minimise the impact of the shock on this informal sector and pave the way for a V-shaped recovery. At the same time they must ensure that the responses remain enshrined in a rules-based framework and limit the exercise of discretion in order to avoid long-term damage to the economy. [3]

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