

THE FIREWORKERS' VILLAGE OF CHAMPAHATI: AN ANALYSIS OF THEIR WORK AND ITS IMPACT ON THEIR LIFE

\mathbf{BY}

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CERTIFICATION

This is to certify that the dissertation titled "The Fireworkers' of Champahati: An Analysis of Their Work and its Impact on Their Lives" has been submitted by Piyali Dutta Banik of Jadavpur University in the partial fulfilment of the requirement for the degree of Master of Philosophy (M. Phil) in Sociology under the supervision of Dr. Dalia Chakrabarti. Neither the dissertation nor any part of it has been submitted for any degree/diploma or academic award anywhere before.

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ABSTRACT

The study was set up in order to understand the work patterns of the fireworkers of Haral in Champahati, West Bengal and its impact not only on their lives but also on their family and relations. The study has employed both quantitative and qualitative approaches in order to study the origin of the village, the nature of work of the fireworkers along different dimensions and its associated impact on them and their family. It examines the risk associations of the work of the fireworkers, the challenges and changes within their work patterns; and how they adjust and negotiate with the changed conditions which have consequences for them and their family.

Data was collected from 35 respondents using purposive sampling, apart from the concerned authorities of the village and firework business association. It was also accompanied by the use of tools like semi-structured interviews, non participant observation, interview schedules, review of relevant documents which yielded both primary and secondary data. Descriptive statistics along with discourse analysis were used to analyse the data. The study found that the village of Haral came into existence and developed centering fireworks industry. The workers form a heterogeneous group who can be classified along different dimensions and there are interesting insights regarding the association of the villagers with this particular type of work despite various risks and hazards. But the various changes are bombarding the villagers with various challenging situations, and in spite of being able to negotiate with the situation they fear that if the present situation continues, it might increasingly difficult for them to continue with their present form of work.

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CHAPTER ONE

INTRODUCTION

"Here the majority of the villagers are associated with making fireworks.....

Wherever and whoever you find in this village will be saying that they are associated with making of fireworks directly or indirectly. Actually they learn the art of this work as a part of their haathekhoriduring childhood and since ever after that, they might not remember a single day when they are tired of or bogged down of making fireworks. Days are getting tougher and tougher for us to survive in this competition driven market but still the love and passion for making fireworks seems to be everlasting.... The necessities of their everyday life and their specialized skill of making fireworks either force or drive them towards remaining aligned with making of fireworks." remarked Shankar Mondal, a man in his late 60s who is also the President of Champahati-Haral Fireworks Business Association while sitting on his green plastic chair with a small table in front of him accompanied by fourteen vacant chairs in the hall which is approximately 500 sq. feet with a staircase running from the right side of entrance which leads to the mezzanine and the first floor of the two-storied, green coloured building identified as the office of the fireworks' business association of Champahati. He identified the association of most of the villagers with the making of fireworks since childhood almost as a part of the ritual of haathekhori. Haathekhori refers to the Bengali ritual whereby a child for the first time formally learns to write alphabets on the day of Saraswati Puja, the worship of the Hindu Goddess of Learning. Generally this ritual is accomplished under the guidance of a priest or the eldest member of the family and is accompanied by the writing of alphabets with the help of slate and chalk. However Mondal used the term haathekhori to refer to the fact that the

fireworkers of Haral have been learning the art of making fireworks since very childhood.

Figure 1.1 The office of ChampahatiHaral Fireworks Business Association

Source: Field image (September 2018-January 2019)

Haral, a village which is located in Champahati in the Baruipur sub-division of the South 24 Parganas is one such rural area where one can find making fireworks is exclusively the major source of income, if not the only; providing a lion's share, fulfilling the daily basic necessities of life of the villagers. The villagers, irrespective of their age, gender and caste can be found to be associated with the making of fireworks, making it an exclusive mark of their identity and existence. Making of fireworks is all-the-year round activity of the villagers who makes a living out of this work.

1.1 RESEARCH PROBLEM

In an age where village India is synonymously identified with agricultural India, the village of Haral in West Bengal, over the years has been able to maintain its exclusive identity of *atashbajir gram* or the village of fireworks. It is no wonder that the life of the villagers gravitate around the making of fireworks which has a considerable impact upon their lives. The unprecedented changes,

uncertainties, risks and hazards are bringing about alterations and challenges in the work pattern and associated lives of the villagers. The study is about delving out how the villagers of Haral in Champahati plays round the question of persistence and dynamism in their work and its impact upon their lives in order to secure their living and the identity of the village as it is known today.

India is not new to the usage of fireworks. While the origin can be traced to China, soon later trade and military contacts made it possible for the fireworks to be available in India. However there is much debate regarding the dating back of firework usage; while some scholars agree that the earliest evidence of fireworks in India dates back to the Mughal times, other scholars especially scholars of History have pointed that the people of India had knowledge regarding the materials used to make fireworks long as 300 B.C. Even the knowledge of gunpowder existed as long back as 8th century, when Sanskrit texts such as the *Nitiprakasika* of Vaisampayana mentions about a similar substance. However the potential of gunpowder to be used in fireworks had not been realised during the time. Moreover Kautilya's *Arthashastra* bears reference to saltpetre, an ingredient used often in making fireworks.

P.K. Gode in his book, *The History of Fireworks in India Between A.D. 1400* and 1900 mentions about his discovery of the Sanskrit texts on the manufacture of fireworks which belong to the period of A.D. 1497-1539. He is of the opinion that although primitive firework mixtures must have been known for centuries to the Hindus in India, but advancements could only be made during the 20th century. However quoting reference of the accounts of Adbur Razzaq during A.D. 1443, Gode traces the use of pyrotechnics during the *Mahanavami* festivals of the Hindus.

On tracing the beginning of making fireworks, while organized efforts can be seen in ancient China, one do not find evidence of organised work centered around firework making in ancient or medieval India. As Gode's book suggest, the knowledge regarding making of fireworks included the use of elements like bamboo, paper, saltpetre; however unorganized, which were particularly used during the festivals and marriages. Various paintings during the Mughal period bear the evidence of the use of firework displays in India which was popularized during the British period who encouraged such uses on various occasion. Gradually various elements and chemicals like potassium, aluminium was made popular in the making process of which added to the colour and fancy of firework.

There is no doubt that Sivakasi in Tamil Nadu is the recent hub of fireworks in India, but the beginning can be traced to the establishment of a match factory in the then Calcutta during early 1900s. Similar to any other small town in Tamil Nadu, Sivakasi too would have been struggling for providing livelihood opportunities, had it not been two men from this region came to work in a match factory in West Bengal to seek fortunes.

P Ayya Nadar and his brother Shanmuga Nadar made a history when they came to the then Calcutta in 1923 to learn the art of match-making. Eight months later, they returned, armed with the skill of making matches and decided to set up a factory in their dry nature soil in the name of Anil and Ayyan brand. Today besides being known for its thriving match industry, the town is also a major firework manufacturing hub, generating approximately an annual revenue of Rs 1000 crore.

On the other hand, West Bengal has two major firework manufacturing hub-Champahati and Nungi, both situated in the district of South 24 Parganas. The study has been conducted focussing on the present village of Haral, as the study area, which is located in Champahati. The entire village makes a living out of making fireworks and almost everyone in the village is involved in the making of fireworks and its associated business in one way or the other. The art of making fireworks, here, can be dated back to more than a half of a century and

the families; generations after generations have been dedicatedly working towards making varieties of fireworks, catering to the varied needs of customers. But the changes, challenges and negligence is making it difficult for the villagers to continue with their age old work and it is in this light that the work of the fireworkers and its impact on their lives has been studied.

OBJECTIVES OF THE STUDY

This dissertation aims at understanding the evolving nature of work patterns of the fireworkers of Champahati and its impact on their lives. Also it aims to study how the changes have been adapted by the villagers in order to maintain its identity. It becomes particularly significant during the present time, when the changes and challenges in terms of their work and lives is necessary to understand, if at all voluntary feeling and willingness is associated with their work, which is a necessary element for the continuance of the village's exclusive association with their work and identity. The above aims raise the following objectives:

- To reconstruct the past of the fireworkers' village using primary and secondary materials.
- To look into the nature of work and associated work life of the fireworkers.
- To look at the significance of their work life for the family and associated relationships.
- To introspect why, despite the fact of enormous associated risks involved, the fireworkers are associated with making fireworks.
- To analyse the past and present trends of work and its associated impact on their lives, given to the fact of various forces of changes.
- To look into whether the fireworkers, are at all willing to continue with their present form of work.

1.2 RATIONALE OF THE STUDY

The village of Haral in Champahati drew my attention three and a half years back in 2015 when for the first time I went to the village to buy fireworks before Kali Puja. Prior to that I had no idea about how a village can base its economy and identity on making fireworks alone. The village at once captivates the attention whereby before Kali Puja, even tea stalls and grocery stores in this village transform and merge with a long chain of makeshift stalls, all displaying colourful and shiny boxes of fireworks. However, besides the bright image of the village, every year newspapers come up with news of blasts and fatalistic accidents in this village while making fireworks and killing the people. Also there are reports of frequent raids by the local police in the village which reveals that there might be something happening in this village- work that might not always be considered as 'proper' in the true sense of the word as it seems to one who visits the village of Champahati- Haral before the Kali Puja.

Almost every person in the village is involved with making fireworks all throughout the year in one way or the other and the hand-made fireworks here are of such great demand that they are supplied not only to adjacent Kolkata, but to other districts and states as well. In spite of the fact that making fireworks is a seasonal affair and its demand fluctuates, families still have been clinging to this work for the whole of the year with minimal association with other occupation which is almost non-existent. The annual turnover from the firework business of Haral is about Rs 42.50 crore, however in 2017, the introduction of GST in fireworks has led to 60 per cent dip in the contribution towards the state economy, leading to much concern among the fireworkers and firework business association. Though manufacturing fireworks is a recognised small-scale industry in the West Bengal, but it needs more organised efforts. The apathetic attitude towards the firework industry can be evidenced by the fact that till date there has been no systematic efforts being made on the part of the

government, non-governmental organisation or scholars to conduct systematic studies and research in the area for framing policies in order to uplift and better the condition of the industry which could otherwise have been capable of contributing much more to the state economy.

Only recently, in June 2018 the Government of West Bengal has roped in Fireworks Research and Development Centre (FRDC) to prepare a detailed project report to set up a cluster of firework factories on 50 acres at Baruipur in South 24 Parganas. The rationale for the study is to have an understanding of how the village and villagers, despite hardship, challenges, changes, lack of organised effort is and will able to continue with the work, generations after generations, which subsequently impacts their lives along different dimensions.

1.3 ACADEMIC AND SOCIAL SIGNIFICANCE OF THE STUDY

The study has its significance both in terms of academic and social aspect. However there has been overlap between the two and it can be seen that the social significance of the study is what drives to its academic significance. The village of Champahati- Haral, known for its popular fireworks all over West Bengal and even in some parts of India can be identified as a village of its kind because in an age where rural India is seen as synonymous to agricultural India, the village of Haral stands as an exceptional one where people live their livelihood by associating themselves with the making of fireworks and its various processes. The hand-made fireworks along with its affordable price make this place very popular among the customers from various places at specific times of the year- especially before Kali Puja, when the village itself bears the evidence of its popularity with the huge number of permanent and make-shift stalls of fireworks by both the roadsides of the village.

Besides the fact of its popularity, busy nature, there is an underlying element of fear, which haunts the entire village. The repeated incident of fire accidents, police raids makes the people of the village fearful about how long will they be able to continue with this work. Added to this, the negligence of the concerned authorities towards the development of the area along with its people induces hopelessness in the minds of the villagers who are associated with the making of fireworks. The fact that these people are left on the mercy of the nature for continuing their generation old work bears an inevitable impact on the social and economic life of the fireworkers.

As has been stated earlier in this section, the academic significance of the study is associated with its social significance in the fact that the research problem is based on the context of the impact which is undeniable irrespective of age and gender categories. The associated history with the origin and development of this village along with its identity as a fireworkers' village and the present analysis of the situation clearly shows that there are certain social issues which have led to the degradation of the quality of people's life and if these are left unattended and unaddressed, the village might lose its age old legacy by losing its popularity and identity as a fireworkers' village. More and more villagers, in spite of remaining associated with the work are giving a second thought as to whether they themselves would be continuing with the present work and would let their children to do the same work.

This calls for an immediate look at the issue on the part of the local authorities-governmental as well as non-governmental and this draws us to the academic significance whereby an increasing need is felt for analysing and providing possible solutions to their problems. A greater number of scholars need to come forward to have an analytical outlook towards their conditions so that they can come up with possible policies and suggestions for implementation.

1.4 RESEARCH METHODOLOGY

Research Methodology is understood as the specific procedures and techniques used to identify, select, process and analyze information about a topic. It may be referred as the philosophy of method being used to undertake the research. Here the first part of the research methodology describes the research design, the research area, the study population and sampling procedures. The methods of data collection (both primary and secondary) and data analysis have also been extensively explained.

1.4.1 RESEARCH DESIGN

After selecting the research problem and framing the objectives, Survey Research has been employed in which triangulation was embedded for achieving a 'mixed method approach'. Bryman (1992) is of the view that triangulation is a method that is used to overcome the problems associated with researches that rely on only one method. Thus it enables the weaknesses of one method to be mitigated by the other. Mikkelson (1995) also emphasized that triangulation is used to overcome the problems associated with researches that rely on only one theory, single method and single data set. Methodological triangulation involves 'within method' triangulation in which case the same method is used on different occasions and 'between methods' triangulation when different methods are used in the same study. Here 'between methods' triangulation has been employed.

Survey Research, according to Isaac and Michael (1997:136) is used "to answer questions that have been raised, to solve problems that have been posed or observed, to assess needs and set goals, to determine whether or not specific objectives have been met, to establish baselines against which future comparisons can be made, to analyze trends across time, and generally, to describe what exists, in what amount, and in what context", Furthermore,

Kraemer (1991) identified three distinguishing characteristics of survey research. First survey research is used to quantitatively describe specific aspects of a given population. These aspects often involve examining the relationships among variables. Second, the data required for survey research are collected from people and are, therefore, subjective. Finally survey research uses a selected portion of the population from which the findings can later be generalized back to the population.

Survey can be used for gathering information about the characteristics, actions, or opinions of a large group of people or for assessing needs, evaluating demand and examining impact. Thus the strength of survey is that it can be used for obtaining information from large samples of the population and well suited for gathering demographic data that describe the composition of the sample (McIntyre, 1994). Surveys can illicit information about attitudes that are otherwise difficult to measure using observational techniques. Moreover, surveys are inclusive in the types and number of variables that can be studied, require minimal investment to develop and administer and are relatively easy for making generalisations (Bell, 1996). The strengths mentioned above made the survey research most suitable for the study.

However, surveys are not without its limitations. One gets only estimates for the true population and not exact measurements and hence generally unsuitable where there is a need to understand the historical context of a phenomena. Bell (1996) also observed that there might be occurrences of biases, either in the form of lack of response from intended participants or in terms of the nature and accuracy of the responses that are received. Other sources of error include intentional misreporting of behaviours by respondents to confound the survey results or to hide appropriate behaviour. Finally respondents may find it difficult to assess their own behaviour or may have poor recall of the circumstances surrounding their behaviour.

1.4.2 RESEARCH AREA

The study particularly focuses on the term 'work' in order to distinguish it from the concept of 'occupation' and 'profession'. While 'occupation' does not require extensive learning and training, the term 'profession' on the other hand entails supervision by other individual(s), needs extensive training, specialized knowledge and demands high responsibility on the part of the workers and guided by certain ethical codes. Work essentially consists of carrying out of tasks which require mental and physical effort in order to produce goods and services to meet the human needs. The effort of fireworkers of the village of Champahati has been termed work and it aims to study the associated impact on their lives. Therefore the study is focused towards an understanding of the sociology of work.

1.4.3 POPULATION

As far as the population of Haral is concerned, a total number of 945 villagers are associated with various types of work for earning their living- 786 are males and 159 are females. However 80 per cent of the working population are engaged with making fireworks, be it males and females. Therefore the number of males who are associated with making fireworks is 629, for females it is 127 with total numbering 756.

1.4.4 SAMPLE SIZE

According to Wilmot (2005), sampling refers to the act, process or techniques of selecting a suitable representative of a population for the purpose of determining parameters or characteristics of the whole population. A sample is obtained rather a complete enumeration of the population for various reasons. Wilmot (2005) further explained that sampling is done in a wide variety of research settings and a few of the benefits of sampling has been enumerated. It

includes a reduction of costs as it is relatively reasonable to obtain data for a selected subset rather than an entire population. Time and effort form the others. However, the small-scale approach only works if the researcher has a strong sampling strategy. A total sample of 35 fireworkers has been selected using purposive sampling. Though the samples are representative enough, but however they are non-proportional. In addition, the key authorities of the Champahati-Haral Fireworks Business Association and Champahati Village Panchayat were also interviewed as key informants in order to triangulate and validate findings.

1.4.5 DATA COLLECTION

This study used a variety of data collection techniques, tools and sources of information (primary and secondary) employing interview schedules, semi-structured interviews, non-participant observation, to collect both quantitative and qualitative data. Multiple strategies or triangulation were used and different people were asked the same questions in different settings so as to reduce the chances of ending up with biased interpretations.

• Primary Data Collection

The primary data were collected from the field survey. Close and open-ended questions were used for collecting quantitative data with semi-structured interviews and non-participant observation was used in obtaining qualitative data.

• Secondary Data Collection

For improving the quality of the discussions, provided explanations as well as to supplement the primary data, secondary data was sourced from both published and unpublished sources including online articles, official reports and the internet.

1.4.6 DATA ANALYSIS

For quantitative survey data, wherever appropriate statistics such as tables, charts have been used for analysis. However, the interesting especially informative qualitative data which includes verbal and behavioural data have been analyzed using discourse analysis which involves a method of analyzing naturally occurring talk and all types of written text.

1.5 CHAPTERIZATION

The study is organized into seven chapters. Chapter one is about the introduction whereby the research problem, objectives of the study, rationale of the study along with the academic and social significance has been stated. Also it states the research methodology of the study including research design, research area, population, sampling, data collection and methods of analysis.

Chapter two deals with review of literature which reviews the various theoretical issues and relevant literature related to the study. It also deals with the various conceptual issues whereby the concepts used for the study have been explained along the various dimensions and indicators. There is a need to review the relevant theoretical issues to have a proper understanding of the various aspects which can be employed regarding the problem. Besides reviewing literature, equally important is to understand the various dimensions along with the underlying nature and causes through which scholars and thinkers have tried to explore and understand the related areas of the research study. Hence this chapter is divided into three parts- one that deals with conceptual issues, another that deals with various theoretical issues and the other that reviews important and relevant literature- books, articles, reports, etc.

Chapter three, four, five and six are based on the analysis of data in accordance with the research objectives. Both primary and secondary data have been used

for the purpose along with the fact that face-to-face interviews were also supplemented by the observation method. For analysis, both quantitative and qualitative methods have been used. Chapter three is all about how the village in Champahati originated and have sustained themselves over years and generations by means of their work that is making fireworks. Chapter four analyses the work conditions of the villagers in the firework industry along with its implication on the workers. Chapter five is about the various challenging aspects associated with the work and how the villagers are negotiating with the associated risks in order to sustain themselves. Chapter six is about the impact that the work of the villagers have on their family and other relations.

Finally Chapter seven is about conclusion which has been divided in to three sections. The first section is about the summary results of the study whereby various theoretical frameworks which have been reviewed have been put to relation with the various aspects of the finding. The second section is about the drawbacks and unavoidable limitations of the study. The last section of the chapter however, is aimed at providing the readers and interested scholars with possible guidelines for future directions in terms of probable areas of research.

Chapter one therefore begins with the introduction regarding the study, whereby the research problem has been stated along with its objectives. Further it has been followed by the rationale of the study whereby the reason and logic behind choosing the current topic as the area of the study has been stated. However it could not have been complete without stating its social and academic significance. This has been followed by describing the research methodology whereby after selection of the research problem, the subsequent chosen methods have been explained along with the reason for choosing it. Last but not the least, follows the chapterization whereby the various chapters of the dissertation has been mentioned followed by a brief overall description in order to give a synoptical view to the reader about its content.

CHAPTER TWO

REVIEW OF LITERATURE

This Chapter is about review of literature whereby the various theoretical issues and relevant literature related to the study has been reviewed. It starts with various conceptual issues whereby the concepts used for the study have been explained. Apart from this, there has been a review of the relevant theoretical issues for a proper understanding of the various aspects which can be employed regarding the problem. It has been subsequently followed by review of relevant literature to understand the various dimensions along with the underlying nature and causes through which scholars and thinkers have tried to explore and understand the related areas of the research study.

Conceptual issues aims at describing and explaining either graphically or in narrative form, the main things to be stressed – the key concepts or variables and the presumed relations between them. The following conceptual issues have been explained elaborately in order to direct to the dimensions and indicators along which the concepts have been used for study.

Work

According to Parry, Taylor, Pettinger and Glucksmann (2005:4) work is not assumed to be a discrete activity carried out in exchange for remuneration in institutions (although it can be) but, rather is conceptualized as being embedded in other domains and entangled in other sort of relations. For Marx work, the production of goods and services holds the key to human happiness and fulfilment is the primary human activity. He believed that work provided the most important and vital means for man to fulfil his basic needs. In a community in which everyone works to satisfy both their individual needs and the needs of others, work is completely a fulfilling activity.

Bowles and Gintis hold that in a capitalist society, the nature of work is shaped by the demands of efficiency and the requirements of technology. However, they claim that the 'alienated character of work as a social activity cannot be ascribed to the nature of modern technology, but, is, rather, a product of the class and power relations of economic life'. Work here has been viewed as a subsistence activity, social activity which is important towards socialpsychological aspect of worker and its impact upon individuals.

Fireworkers

The concept of fireworker refers to an individual who makes fireworks or is associated with production and distribution of fireworks. Making fireworks has been traditionally and is largely an affair whereby the art and skill of making fireworks is passed on from generation to generation. However fireworkers can be distinguished from pyrotechnician on the ground that the latter is an individual responsible for the safe storage, handling and functioning of pyrotechnics and its devices which requires enormous training, skill, expertise and is identified as a profession. In the context of the study the concept of fireworkers has been used to refer to the workers who can be either unskilled manual workers, semi-skilled workers or skilled manual workers irrespective of age and gender.

Village

A village community may be defined as a group of people living in a definite geographical area, characterised by definite form of consciousness, common life styles and various forms of intensive social interaction. Generally in a village, agriculture is not only an occupation but also as a way of life. According to Mandelbaum, "To a villager, his village is more than just a collection of houses, lanes and fields; it is a prime social reality." Apart from other criteria for distinguishing the characteristics of village India like predominance of

agriculture as the main economic activity, community sentiment, importance of neighbourhood, predominance of primary relations and joint family system, specific norms in terms of caste and kinship relations, a rural community in India is specifically distinguished by its small size. According to the Census of India, a place inhabited by a population of 5000 can be designated as a village community.

• Life

The meaning of the concept of life makes impact on the state of satisfaction. In order to access the level of satisfaction, the individual subjectively interprets the quality of his living conditions- conditions of his activities, relationship with people and himself. The search for the meaning of life has produced much philosophical, scientific, theological and metaphysical speculation. As Beryaev (1991) noted, "I may not know the meaning of life, but the search for the meaning of life already itself gives the meaning of life." The concept of life has been used in this study in the context of worker's perception of one's status and role; notion of contentment, gratification, satisfaction, well-being or otherwise; relationship with others in the context of his/her work, family and associated relationship.

• Impact

The term impact refers to the effect or consequence that a phenomenon has on its surrounding environment including social environment. Though the word 'impact' is itself difficult to define and measure, but for the present study the term impact has been used to understand how the work process of the fireworkers bears consequence for the work life, family, relations, attitudes, and community at large. Also the impact would be assessed in terms of how the working conditions bear effect of the worker's and his/her family's life.

The review of theoretical framework and existing literature will be focussing on the basis of relating these concepts which has been explained above. The second part, that is, the theoretical issues for this study is drawn from major theories in the field of work and associated dimensions. This has helped to understand the various aspects along which the present study could be carried out. There have been various studies about how the work process impacts the individuals and his/her life, why and how does one choose one's line of work, association of the work process with the greater society that helps in understanding the work process in general and its associated aspects. Therefore it is important to understand and analyse the essence of various theories in this area to have an insight about the work of the fireworkers in the village of Champahati bears an impact on their lives.

• Social Organisation of Industry

a. Total Social Organisation of Labour (TSOL)

The core thrust area of the theory of Miriam Glucksmann is towards the interconnection between labour under different socio-economic relations or in different socio-economic spaces. It is concerned with the various connection, articulation, intersection, configuration, pattern, network between different organisations of labour. The processes of technological innovations, the implementation of information and communication technologies in the fields of economic life, the increasing network of complex global interconnection, reconfiguration of temporal arrangements all have profound effects for the organisation and experience of work. Such changes exert impact upon the individuals and households, their question of work/life balance, time pressure, and tensions regarding competing responsibilities which are seeing as pressing problems of work life today. It is argued that whatever is perceived as 'economic' or understood as 'work' may vary significantly over time across

different societies. However it depends upon how economic processes are embedded and instituted in particular cases.

There are four interdependent dimensions to represent the interconnections between different work activities undertaken in different parts of an overall process as well as the interpenetration with and relative differentiation of work activity from other social and cultural relations which are as follows:

Dimension I: Interconnection of work activities across economic processes:

It traces the interpenetration of work activities across the processes of production, distribution, exchange and consumption along with the transformation or emergence of processes and new occupations, skills, division of labour and organisation of work associated with them. Work which is undertaken at different points as a part of a particular process may vary or shift as a consequence of new technologies or organisational innovation.

Dimension II: Socio- economic mode: interconnectedness across boundaries between paid and unpaid work, market and non-market, formal and informal sectors

While paid employment is the dominant mode in modern industrial societies, work is also conducted in a multiplicity of ways, many of which are on unpaid basis. Permeable boundaries have been evident between socio-economic modes and work activities.

Dimension III: Articulations of work and non-work activities: the multidimensionality of labour activity

This dimension focuses on the interpenetration and boundaries between work and non-work processes. Three different issues relating to work/non-work are issues of 'embeddedness versus differentiation', 'emotion' work and 'aesthetic labour' and consumption 'work'. The first is concerned with forms of labour

that are more or less undifferentiated from non-work activities or relationships. The second area focuses on jobs where in addition to emotions, aesthetics, interpersonal skills and sexuality comprises an essential component combined with technical and professional competencies. The third area explores how work is involved in practices of consumption and is gradually extending into new domains.

Dimension IV: Interconnecting temporalities of work

Time is socially organised in terms of durations, cycles, synchronies, sequences and their articulation and temporality has been conceived as a 'golden thread' running through and connecting the three dimensions.

Figure 2.1 depicts the interconnectedness of work activities based on various dimensions.

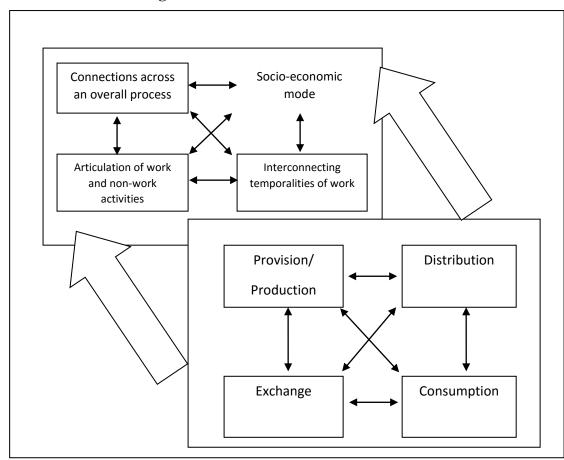


Fig 2.1: Interconnection of work activities

Source: Adapted from Miriam Glucksmann (2005:26)

Thus it can be seen that there is a relational conceptual framework which brings out together the four dimensions of interconnectedness of work activities: across economic processes, modes of provision, the interfaces of work and non-work, and the temporalities of each of these three. These dimensions not only co-exist and combine, however changes in each might bring about changes within the other dimensions.

b. Scientific Management

Frederick Taylor tried to raise the efficiency of work by using a scientific time-and-motion theory. He was obsessed with the study of how to conserve energy in order to increase efficiency. He was of the view that efficiency of work could substantially be increased with the proper conservation of energy and check on the physical movements and this became the origin of time-and-motion studies. In his book titled *Principles of Scientific Management* (1911) he explained regarding how to achieve maximum efficiency and productivity at the workplace. Taylorism enjoined:

- i. Selection of the best man for the job
- ii. Instructing him extensively on his work and regarding how he should perform in his work which meant that the supervisor/ manager should study how best there could be an economy of movement which would conserve the worker's energy for working over a long period of time and
- iii. Use the carrot and stick approach by persuading people to try harder by offering them a reward if they did, or punishing them if they did not.

The main assumption of Scientific Management theory is that the worker should obey the instructions of the supervisor unquestioningly. However, proper care was taken as on instructing them and ensuring that they do not suffer from fatigue, and that the physical environment of the work is clean and healthy. These factors encouraged the workers to achieve their optimum productivity. (Bhowmick, 2012, p. 47 &48)

c. Fordism- Assembly Line

This refers to a production process employed by Henry Ford, founder of Ford Motors for manufacturing his Model T cars. It later came to be known as mass production which increased the production of cars besides lowering the cost of production drastically. Impressed by the scientific management theory, he adapted its techniques in building his model. Mass production required splitting up the production process into small parts. He used the assembly line as the means of putting together the different components to make the whole. The workers stood in a line, next to the other, a conveyor belt ran in front of them and each worker had his own components to attach to the machine. In this way, the machine would be travelling to each worker and at the end of the conveyor belt; the final product would be ready. The work on the assembly line was designed in a way so that the workers worked being proximate to each other but they should not have any physical or verbal communication among themselves for that would distract them and reduce their pace. The only communication they could have is with the supervisor who instructs them to increase or lower the pace of work and who also reprimanded the worker for not being able to keep pace with others. The worker is thus reduced to a machine without any ability to use his discretion while being at work.

• Gendered Division of Labour

According to anthropologists Lionel Tiger and Robin Fox, the social scientists assume that human beings have simply in terms of the culture of their society

are ignoring what they call human 'bio-grammar'. It refers to a genetically based program, which predisposes humans for behaving in a certain way. Though there might be various lines of similarity as far as the bio-grammars of men and women are concerned, there are also important differences between them.

Tiger and Fox argue that men are more aggressive and dominant compared to women and these characteristics result from differences between male and female hormones. As a result men monopolize the 'position of power' and women are programmed ay their bio-grammars to reproduce and care for children. Hence, the division of labour is totally accounted for in favour of woman within confinement of their homes and the men guard up to seek for the family.

On the other hand, George Peter Murdock view that males and females are not directed by genetically based predispositions for adapting particular characteristics. Rather, he simply suggests that the biological differences such as the greater physical strength of men and the fact that women bear children, lead to gender roles out of sheer personality.

Talcott Parsons has advanced arguments to account for the role of women in industrial society. He characterizes the woman's role in the family as 'expressive' meaning that she provides warmth, security and emotional support which is essential for the effective socialization of the young. The men, on the other side spend his working day competing in an achievement oriented society which leads to stress and anxiety. However the female 'expressive role' helps in relieving this tension by providing the tired breadwinner with love, compassion and understanding. Therefore, biological differences account for family solidarity within societies.

Ann Oakley, a British sociologist and a supporter of the women's liberation movement holds strongly on the side of the culture as a determinant of gender roles. According to her, 'Not only is the division of labour by sex not universal but there is no reason why it should be'. There is diversity across different cultures and claims Murdock's arguments to be biased and western in approach typecasting the role of women in terms of 'expressive' rather than both a combination of expressive and instrumental functions.

Oakley examines a number of societies where biology appears to have little or no influence in terms of women's roles. The Mbuti pygmies, a hunting and gathering group living in the long rain forest have no specific roles in terms of division of labour, and men and women hunt together, shares the responsibility of the children. Again among the Australian aborigines of Tasmania, both men and women do hunting, fishing and catch opossums.

In terms of present societies, she notes that women form an important part of armed forces of countries like China, Russia, Cuba and Israel. Hence, she claims that the above instances point to the fact that there are no 'exclusively' female roles and that biological predispositions does not govern female roles.

She further criticizes Parsons' argument by showing that systems other than the family and the female mother role can effectively socialize the young by pointing towards a large body of research which shows that the employment of mother has no detrimental effects on child's development. She also argues that expressive housewife mother role is not necessary for the functioning of the family unit. It mainly exists for the convenience of men, and looks upon Parsons' explanation of gender roles as simply validating myth for the domestic oppression of women.

Ernestine Friedl provides another explanation for the sexual division of labour and male dominance. She also supports a cultural explanation keeping in view that in some societies, activities like weaving, pottery making and tailoring are thought to be naturally men's tasks, in other's women's. However it is significant that in societies where men perform the same tasks carry higher prestige than in the ones where they are performed by the female counterparts. According to Friedl, it is a reflection of male dominance which exists at different degrees in all societies.

Work and Alienation

a. Alienated Labour:

For Marx, work, which signifies production of goods and services, is the key to human contentment and fulfilment. Work, being the primary human activity has the capacity to either fulfil man's potential or to distort and pervert his nature and relationships with others. Alienation denotes that human is cut off from his work as a result of which he is not able to find satisfaction while performing his labour or in the product of his labour. This leads to enstrangement of the worker from himself which is the result of his being unable to express his true nature in his work. Consequently, the worker is alienated from other fellow workers.

Marx was of the view that an individual is able to express his personality through his creation of a product. When he sees that his product is being used and appreciated by others, it gives a sense of deep satisfaction. In a society, where everyone works to fulfil both their individual needs and the needs of others, work is perceived to be a fulfilling activity. Marx speculates that the sense of alienation originates within the economic system where the products of labour become commodities and perceived as mere 'objects' in the market. Goods are no longer a part of the individual who produces them. This ultimately leads to the situation in which the worker is related to the product of his labour as an alien object.

b. Alienation and Technology

The American sociologist, Robert Blauner sees production technology as the major factor which influences the degree of alienation that workers experience. According to Blauner, alienation is 'a general syndrome made up of different objective conditions and subjective feelings and states which emerge from certain relationship between workers and socio-technical settings of employment'. 'Objective conditions' mainly refer to the technology employed in particular industries whereas 'subjective feelings and states' refer to the attitudes and feelings that workers have towards their work. He considers workers' attitudes as a valid measure of their level of alienation. Thus if workers express satisfaction with their work, they are not alienated.

Blauner divides the concept of alienation into four dimensions: the degree of control workers have over their work, the degree of meaning and purpose they find in work, the level of their social integration into their work and the degree of involvement in their work. Based on these four dimensions, the alienated worker has a sense of powerlessness, meaninglessness, isolation and self-enstrangement. He admits that the nature of the work is not completely shaped by technology and states, 'Whereas technology sets limits on the organization of work, it does not fully determine it, since a number of different organizations of the work process may be possible in the same technological system'. However, for him, technology is the major factor influencing the behaviour and attitudes of the workers.

c. The influence of work on leisure

According to Stanley Parker, the leisure activities are 'conditioned by various factors associated with the way people work'. There is a direct relation between leisure activities and the amount of autonomy people have at work, the degree of involvement they find in their work, and their

level of intrinsic job satisfaction. Deriving from his studies, he placed the relationship between work and leisure into three main patters; the extension pattern, the neutrality pattern and the opposition pattern.

In the extension pattern, work extends into leisure and there is no clear line of division between the two. Activities in both spheres are similar, and work is a central life interest rather than family and leisure. This pattern is associated with occupations which provide a high level of autonomy, intrinsic job satisfaction and involvement in work. In the neutrality pattern, there is a fair distinction between work and leisure. Activities in the two spheres differ and family life and leisure, in comparison to work forms the central life interest. This pattern is associated with occupations providing a medium to low degree of autonomy, which requires the usage of some of the individual's abilities, and where satisfaction is with pay and conditions rather than work itself. In the opposition pattern, there is a sharp distinction between work and leisure. The two areas bear different activities and leisure forms the central life interest. This pattern is associated with jobs providing a low degree of autonomy, which require the use of only a limited range of abilities and which often produce a feeling of hostility towards work. Hours of leisure are long and used mainly to compensate for work. Therefore it is clear that work and leisure can only be understood in terms of their cultural setting.

• Risk Society

Ulrich Beck indeed not only broke out of conventional and orthodox social science and politics but also took up the challenge of confronting the questions pertaining to 'ecological blindness' which the social scientists including sociologists were not keen to pursue by introducing the new paradigm of the risk society. According to Beck, the risk society is not a

revolutionary society but more than that- a catastrophic society, whereby the state of emergency threatens to become the normal society.

Beck opines that risk society is a hybrid society and the 'risks are man-made hybrids' which includes and combine politics, ethics, mathematics, mass media, technology, cultural definitions and perceptions. It is important to note that one cannot separate these aspects or realities, if he or she wants to understand the cultural and political dynamics of world risk society. Hence risk is not only a notion which is used in a central manner by various disciplines but is also the way in which the 'hybrid society' watches, describes, values and criticizes its own hybridity.

The risk society can be considered as a kind of society which systematically produces, defines and distributes techno-scientifically produced risks. Risks can be defined as a systematic way of dealing with hazards and insecurities induced and introduced by modernisation itself. Risk society, by its very nature being 'chameleonic', transform itself from one form to another- from technical risks to economic, market, wealth, political and so on.

The concept of risk society points towards three dimension of the epochal transformation of the industrial society. First, while progressing within the progressive modernisation movement, the modern, industrial society is using up the sources of nature and culture thus endangering its own existence. Secondly, the societal conception of security has been upset by the hazards and problems that the industrial society itself has produced. Thirdly, it, in turn, leads to the disintegration of the cultural meaning of industrial societies generating the social forces of 'individualisation of risk'. The ultimate implication of this is that 'the individual himself or herself becomes the reproduction unit of the social in the lifeworld.' (Beck et.al., 1994:90)

• Rational Choice Theory

Rational Choice theorists assume that people are rational and therefore direct their action towards what they perceive to be the most effective means to reach their goals. This means choosing between alternative means by weighing them, hence the term rational choice. Rational Choice theory explains everything in terms of the individual and his reason. It has nothing to do with whether the reason or false- individuals act in a certain way because individuals have reasons for that, and hence it is rational for him or her.

There are certain postulates of Rational Choice theory. First is the methodological individualism whereby any social phenomenon is explained in terms of individual's action. Then comes 'verstehen' whereby any individual's action is to be understood in terms of interpretative understanding, third that meaning of the individual's actions can be probed into and understood why he/she has done this. Therefore the reason lies within the individual's mind and it is not for the external observer to find the meaning. This is known as the postulate of rationality. Fourthly, in order to realize certain goals, individuals act in a particular way and it is because they have found certain consequence in it. This is called 'instrumentalism consequentialism'. Here the individuals look for the consequence whereby they are capable of weighing possible profits and costs in pursuing a line of action. This is called 'maximisation or opitimisation'. Figure 2.2 depicts the steps in which Rational Choice operates.

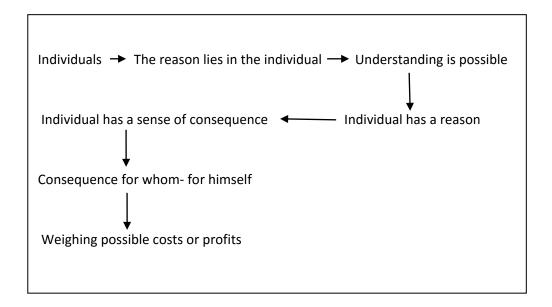


Fig 2.2 Operation of Rational Choice Theory

An overview of the different theoretical frameworks which has been referred to for the study is presented in the table 2.1.

THEORY	THEORIST	THEORITICAL OVERVIEW
Total Social Organisation of Labour	Miriam Glucksman	There is interconnection between labour under different socioeconomic relations or in different socio-economic spaces.
Scientific Management be incre conservation of energ the physical movemen became the origin of t motion studies.	y and check on its and this	Efficiency of work could substantially
Fordism- Assembly Line components to make t	Henry Ford the whole.	The assembly line is a means of putting together the different
Gendered Division of Labour	Lionel Tiger and Robin Fox	Human beings behave in a certain way according to genetically based program known as 'bio-grammar' Hence men are more powerful and aggressive and women reproduce

		and care for children.
	George Peter Murdock	Biological differences between men and women lead to different gender roles out of sheer practicality.
	Talcott Parsons	Women's role is perceived to be expressive whereas men are breadwinners, spending his time competing in an achievement oriented society.
	Ann Oakley	Biology has little or no significance in terms of gender roles. Rather such roles differ across different cultures.
	Ernestine Friedl	Culture is responsible for great variation in gender role across societies. However in societies where men perform the same tasks carry high prestige than in the ones where they are performed by females.
Work and Alienation	Karl Marx	In a capitalist society, alienation denotes that man is cut off from from his work,leading to a situation where he is not able to derive satisfaction from the product of his labour which is commodified. This leads to enstrangement of the worker from himself and his fellow worker.
	Robert Blauner	Production technology is the major determinant which influences the degree of alienation that worker experiences.
	Stanley Parker	There is a direct relation between leisure activities and the amount of autonomy people have at work, their degree of involvement with work and their satisfaction from work.
Risk Society	Ulrich Beck	The risk society refers to a kind of catastrophic society whereby the state of emergency threatens to

	become the normal society. Risks are man-made hybrids and are chameleonic in nature transforming itself from one form to another.
Rational Choice Theory	Any social phenomena can be explained in terms of individual's action and individual's action can be explained in terms of individual reason.

Table 2.1 Overview of theoretical frameworkS

The third part is concerned with literature review regarding different dimensions which is important for having an understanding of work and its impact on an individual's life.

In order to understand the concept of fireworkers, it is necessary to understand the concept 'work' in order to have an understanding regarding how it bears impact on the life of the fireworkers. In *The Sociology of Work*, TheodreCaplow actually intended to describe occupational institutions, but gradually focussed on division of labour, which for him, is a neglected topic. In this book, he discusses about how work is assigned, or that of occupational status measured, the various forms of mobility and its relation to work, or that of how family and women are associated. The sociology of work has been treated primarily as the study of those social roles which arises from the classification of men by the work they do. Caplow is however of the view that social institutions can be improved by change, but that is however, a slow spiral.

Moreover, A New Sociology of Work? examines the concept of work, its boundaries at the end of which other activities begin and the pattern of organization of different forms of labour across different societies. It tries to highlight the nature of work; the various dimensions of work- socio economic,

spatial and temporal; how work is embedded in other social relations whereby it becomes difficult to separate the two. The authors also look at how different forms of work are organised at a social structural level as a result of which change in one type of function of labour brings about changes in pattern of work in other areas. The authors also contend that the relationship between wages and work may not always be taken for granted. While some forms of labour may become increasingly commodified, others may become economically devalued or revalued in terms of other perceived rewards. Therefore the book has aimed at an empirical understanding of the nature, dimensions, and relations of different forms of work.

Apart from this, in order to understand the present working patterns of the fireworkers, it is necessary to know their past pattern- the kind of occupation with which their previous generations were engaged, their place of origination, why they are engaged with such occupations and if there is pattern of change visible in their occupation. While searching for traces of such details, A.K. Das's Trends of Occupation Pattern Through Generations in Rural Areas of West Bengal provides a detailed analysis of the historical background of various occupation, how they are continuing and at times getting disjointed across various generations. The study is based on four districts of West Bengal- South 24 Parganas, Burdwan, Midnapur and Jalpaiguri. A detailed analysis of the various continuities and discontinuities of various occupations, primarily of Scheduled Castes and Tribes have been provided along with the pattern of transformation and it is surprising to note that various occupation of South 24 Parganas have been accounted for during the 1960s, but however no mention has been there regarding the fireworkers in spite of the fact that this work gained popularity since the 1950s. However, the author has also provided with some recommendations designed for the improvement of the conditions of various workers.

It is known that the materials- be it raw and processed materials and objects with which the fireworkers deal will impose threats- both to health and life which might prove to be fatalistic. But an interesting aspect to be pondered is to why despite the risks involved, they engage in this work. Though not a direct reflection, Matthew Desmond's *On The Fireline: Living and Dying with Wildland Fighters* tries to find answer to this question and conducted an ethnographic study among the fire crew of the Northern Arizona, of which he himself was a member. Interestingly his study found out that surpassing all other factors, the association of the fire-fighters regarding the work involving fire with that of nature enabled them to work desperately and without fear in a high-risk profession.

To understand the risks associated with the work and in line with Beck's theory of risk society, The *Risk Society and Beyond* highlights on the 'constructed nature of risk' which is a practice of manufacturing particular uncertainties that may have harmful consequences to life'. Therefore 'the essence of risk is not that it is happening, but that it might be happening'. The authors also hold that there are no fundamental differences between risk society and risk culture: if there is a difference, it is a matter of degree and not principle. Risks are not more just taken by individuals but imposed on entire societies, might escape detection and be beyond perception by senses; therefore it might elude human calculation and the powers of conventional imagination.

Coming to the conditions of the workers in the firework industry, N. Rajathilagam in *Analysis of Safety in Fireworks Industries by Chi Square Analysis* on Virudhnahgar District of Tamil Nadu and Dhruv Katoria and others in A *Review of Risks to Workers Associated with Fireworks Industry*, in a similar tune, starts with the analysis of the potentially hazardous fireworkers, a minute mishandling of which may end up with fatalistic accidents. But while the former describes various factors involved in accidents in the manufacturing

units and tests various hypotheses with the help of chi-square, the latter analyses various adverse effects of different chemicals used in firecrackers- how it has a gender impact. However, both the articles conclude again with certain recommendation for reducing the harmful effects of chemicals, used in manufacturing firecrackers, on the workers.

Related to this, GodsenMohandoss in his Report on the Visit of Dr Yogesh Dube to Review the Child Labour Situation in Firecracker & Match Industries in Sivakasi, Tamil Nadu states that despite being one of the developed states of India, Tamil Nadu is one such where contradictory scenario can be observed. Despite the literary rate being 73.45 (according to 2011 census) the lowest dropout rates in primary level, it is also the hub of child labour, especially in match and firecracker industry. Sivakasi is no exception. The report analyses the factors contributing to child labour in Sivakasi, the detrimental health consequences and the often ineffective existing measures therein. The report ends with certain recommendations which look forward to put an end to children's vulnerability through effective plans, programmes and strategies. This report has been particularly taken note of in order to understand the nature of work that the children are involved in the process of making fireworks- their small hand and fingers facilitate the finer tasks to be done in the process. Myron Weiner, Neera Burra and Asha Bajpai's Born Unfree agree to the kind of exploitative work conditions and its detrimental effects on the children of Sivakasi who work in matchstick industry. It is stated that the child labour can be categorized under four categories who work in different fields of labour-who work in factories, workshops and mines and are to be found in semi-urban and urban areas in both organized and unorganized sector; who work as bonded labour in agriculture and industry; who are street children in semi-urban and urban areas; and who work as family labour in agriculture industry, home-based work. However it has also been contended that in spite of such existence of

categories; it is undeniable fact that they meet at crossroads and have overlapping ends.

This chapter is significant in the sense that before moving to the subsequent chapters it is important to have an understanding of the conceptual issues as well as theoretical frameworks and it is equally important to have a review on the existing literature because it provides a direction and backdrop towards which the study has been undertaken. Apart from this, it will also provide the readers a direction towards which various dimensions of the study can be carried out in future, thereby exploring the possible newer areas of the present study.

CHAPTER THREE

TRACING THE ORIGIN OF THE

VILLAGE'S FIREWORKS INDUSTRY

INTRODUCTION

Chapter three is about tracing the origin and development to analyse the past of the fireworkers' village and the evolution of the village of Haral as it exists today. It starts with description of the profile of the village and proceeds with the analysis of the origin of the village centering around a small-scale industry-making of fireworks. It also describes how thereafter the village and the villagers have been able to sustain their identity and thereby continue with their present form of work over generations. Here primary as well secondary data have been analysed using interview schedules, semi-structured interviews and various forms of discourses respectively.

3.1 PROFILE OF THE AREA

The study which is based on the village of Haral in Champahati is a village located in the block of Baruipur in the district of South 24 Parganas. Champahati is located at a distance of about 30 kms from Kolkata and can be reached at both via roadways and railways thus taking almost two hours by the former and almost one hour by the latter. However, for reaching the village of Haral, one will need to reach Champahati station, and thereafter one needs to commute by motor-driven local van familiar by the name *votvoti van*.

Champahati is close to the nearby villages of Kalikapur, Pratapnagar, Madarhat, Mathurapur and is surrounded by Sonarpur Block, Alipore Block, Bishnupur I Block towards west and Bhangar I Block in the east. The village of Haral is presently administered by Champahati Gram Panchayat under Manna Naskar as

Pradhan, Smt. Radha Biswas as *Upa-Pradhan* and falls under the jurisdiction of Baruipur Panchayat Samiti. The firework business, on the other hand, is administered by ChampahatiHaralAstashBajiByabsayi Samiti with Shankar Mandal as its president and is located at the village of Haral.



Fig 3.1.1 Geographical location of the village of Haral

Source: Map data @2019 Google

The village of Haral is a small one comprising of about 604 houses within a geographical stretch of about 1600 sq. metres (according to 2011 census). As far as the weather is concerned, it is predominantly hot and dry throughout the year. There is no trace of agricultural activities, however ponds of various sizes exist where on visit, one can find the villagers taking bath, women washing clothes, shampooing their hair in rippling water, children playing around, throwing pebbles and so on. As far as the infrastructure of the village is concerned, it is characterized by utter lack of development and amenities. Roads are full of potholes, and the upper crust of the asphalted narrow village road which was made more than a decade back has been corroded away by the rains, making the journey in the motorized local van very uncomfortable. As far as the educational institutions are concerned, there is no school in the village of Haral. However, the children here mainly go to three schools- VivekanadaPrathamik

Vidyalaya, ChampahatiNilmonikar Vidyalaya (H.S.), SalgohaliaNimnoBuniadi Vidyalaya and all of the three schools are located at places distant from the village of Haral. Even there is no government general college, even, in Champahati, the only popular ones are Susil Kar College located in Naridana which is almost 5.7 kms away from Champahati and Amritalal College located at a distance of about 6.1 kms in Khodar Bazaar Uttarpara- however both the colleges along with other private colleges are located in Baruipur. The village lacks any form of healthcare facilities and during times of need for medical aid, the nearest ones are Ispat Cooperative Hospital located in Kalikapur and Baruipur Super Speciality Hospital located at Kulpi road, Baruipur. It takes a long time for the villagers to reach these places in times of medical emergencies primarily because of two factors-poor road conditions and connectivities, lack of proper transport and communication and above everything else the distance. The main forms of mode of transportation for the villagers are bicycles, local motorized van while some other comparatively affluent ones prefer motorbikes.

Fig: 3.1.2 The busy market of Haralbefore Kali-puja and Diwali





Source: Field pictures (November,2018)

The village of Haral and its surrounding environment has a peculiar element of distinctive characteristics which can be sensed if one goes during pre Kali puja time and rest of the year. Though one can also find stark differences in the locality on weekdays and weekends, but the business hours generally stretches between 11 am to 4 pm. On entering the village, one can find huts with people engaged in making fireworks and also shops of various sizes selling only

fireworks. On weekends hardly 10-12 shops remain open, rest closed. But the picture changes completely when visited before Kali puja- innumerable makeshift stalls apart from the permanent ones sell fireworks ranging from *fuljhuri*, *rangmashal*, *tubri*, *charki* to latest forms of fireworks. The shops attract hundreds of customer everyday from Kolkata and neighbouring districts. The village itself turns into a festive locality characterized by hustles and bustles everywhere; buyers engaged in bargaining and shopkeepers trying for the best deal. However, one finds a unique feature of the village, while entering during this time with boards hung about everywhere written "NO SMOKING" in order to avoid any forms of fire accidents. Also, irrespective of the time of the year, one can sense the smell of gunpowder just upon entering the village and this very smell marks the onset of the boundary of the village of fireworkers.

3.2 ORIGIN AND EVOLUTION OF THE VILLAGE AS IT EXISTS TODAY

The development of the village of Haral as the village of fireworkers can be traced only after the 1950s. During the pre-independence period, almost more than 100 years back, the village did not exist as we see today. It had Bidyadhari river flowing over the area with the surroundings covered with shrubs, mangroves, forests and no traces of human population were to be found because this area was inhabited by wild animals. As Shankar Mandal recalled, human beings did not live over here, the land was infertile, improper for any forms of agricultural activities, wild animals roamed about, and the area was infested by epidemics. Over time, the river changed its course completely and stopped flowing over the area, and gradually people from adjoining villages and even from Bangladesh during the partition started coming to the area, cleared up the forested area and settled up in the form of village.

This village later came to be known as Haral and was inhabited by villagers who had no work or occupation for their sustenance and languished in poverty

and suffered from epidemics which were frequent till then. Moreover, they had no option for developing agricultural practices over there because the climate have always been dry, land infertile, therefore unsuitable for cultivation purposes. Haral, together with nearby villages, which today forms part of Champahati turned into a fireworks hub some more than sixty nine years back when in 1950s Raimohan Dutta, a merchant of Bhawanipore of today's Kolkata bought 50 *bighas* of land including the area, used today as roadways for communication and set up a firework factory here. Soon it attracted the villagers to work as labourers in TaaraMaa Firework Factory who now had a possible source of income and therefore could afford to lead a better life. They were trained regarding how to make fireworks and soon cheap labour helped the factories flourish. Moreover the making of fireworks was popularized among the villagers who later on started making fireworks at home itself. In 1996, when the decibel level was restricted to 65, the factory was severely financially affected and many labourers lost their job.

The Dutta family permanently moved to Bhawanipore leading to the shutdown of the factory. However, a much smaller factory with the same name operates even today. It was only during 1993-94 that making fireworks was identified as the main occupation of the villagers and even today, generations after generations continue with the same work.

Today the firework industry is stretched around two villages of Champahati-Haral and BajeHaral, both adjacent to each other. But Haral is the village which is exclusively dedicated to the making of fireworks- be it as a home based work, cottage industry or large factory. BajeHaral has fewer factory units of fireworks. On entering Champahati, the main stretch for making fireworks starts from Chinemore and most of the fireworks are manufactured in an area within Haral known as Chanditala.

As far as Champahati is concerned, there are approximately 5000 manufacturers and sellers doing business. Among them only 11 have acquired license for manufacturing and around 180 have license to sell. Haral alone accounts for 136 license holders who are manufacturing and selling fireworks, rest innumerable are unlicensed and are fully aware that the police may pay a visit anytime.

Today almost every villager of Haral is involved in the fireworks business in some way or the other for sustaining their lives irrespective of their age and gender. Those who do not either sell or manufacture fireworks are either procuring raw materials or are involved in transporting finished products. Here the price of the fireworks is reasonable because everything-from procurement of raw materials to retailing is done by the villagers. However, the incident of Pingla bomb blast in Medinipur, on May 2015, in which 12 people were killed, prompted the police authorities to undertake raids in all such places in the state where explosive materials are stockpiled. Champahati was no exception and thereafter the villagers were compelled to become extra cautious. Before and around the time of Kali puja and Diwali, the local tea stalls and eateries are kept close to avoid and accidents and moreover if anyone is found smoking inside the village, they are immediately asked to throw away the stub carefully in order to ensure safety. However, accidents have been reported to have occurred, despite safety measures, sometimes being fatalistic and it is a matter of fact that while some of these incidents get reported in the media, most of them do not.

CONCLUSION

It can be concluded that the village of Haral would not have been developed as the village of fireworkers had there not been the first factory been set up by Raimohan Dutta. The poverty, unavailability of employment, frequent epidemics are the factors which resulted in the impoverishment of the villagers. Soon an opportunity to get engaged in employment and provide themselves a means of sustenance is what made the firework industry so popular among the

villagers who soon got engaged as workers in the factory. Moreover the weather of the village has never been favourable for agricultural activities, but the same weather, being dry and hot for most of the time of the year is ideal for making fireworks. Soon the villagers mastered the art of making fireworkers and therefore in spite of the fact of shut down of TaaraMaa Firework Factory, they started making fireworks at their home. Today the popularity of the industry of firework making in the village is evidenced by the fact of more than a hundred licensed manufacturers and sellers. However, the number of unlicensed ones surpasses the former which makes them vulnerable in times of police raids. The incidents of accidents at various times along with the police raids have made the villagers much conscious and they have tried to adapt various safety measures to avoid any fatalistic accidents. However, the effectiveness of those measures can be questioned by the fact of frequent accidents, some of which gets reported by the media while most of them do not. In spite of various adverse circumstances it is found at the same time that the villagers have managed to continue with making fireworks generations after generations. It is therefore interesting to note how a village's identity has developed centering round a particular form of work-making fireworks.

CHAPTER FOUR

WORK CONDITIONS OF PEOPLE

IN THE VILLAGE'S FIREWORKS INDUSTRY

INTRODUCTION

Chapter four is about the nature of the work conditions in which the villagers of Haral has to work. It begins with the description of socio-economic status of the villagers that is, the sex-ratio, literacy rate, stratification pattern, different age groups involved in the work, their educational levels which is proceeded by the analysis of the respondents in terms of their occupations- how many of them are engaged within the industry and how many are outside it, alternate occupations in which the respondents are engaged in, the nature of division of labour existing within the work, categorization of the villagers on the basis of work, nature of income on the basis of their work, whether they have been working for generations and so on. It also analyses the nature of risks associated with the work and the workers' attitudes to such risks. It is important to have an understanding of the nature of work conditions in the fireworks' industry to analyse the impact that the work and associated conditions have on the fireworkers' lives.

4.1 SOCIO-ECONOMIC STATUS OF THE RESPONDENTS

According to 2011 census, the village of Haral has a population of about 2730 villagers out of which 1386 are males and 1344 are females. The sex ratio of the village stands at about 970 females per 1000 males. The total number of children within the age group of up to 6 years is 282 out of which 136 are males and 146 are females thus a favourable picture in terms of child sex-ratio can be seen. However, the literacy rate of the villagers is low accounting for 72.18% in

total. Also it has been found that the literacy level of the women is lower as compared to that of the male counterparts. The literacy rate for men is 79.52% whereas for women it is about 64.52%.

On examining the stratification system of the village, it can be found that the village consists of general castes and scheduled castes. However the Scheduled Castes form an overwhelming majority numbering 2579 out of which males and females numbered 1311 and 1268 respectively. However the village has no traces of Scheduled Tribes living there. The villagers who are associated with various works was identified as 945 (786 are males and 159 are females) according to census data, out of which around 80 per cent are engaged in making fireworks numbering about 756. The next sections based on empirical study present socio-economic background of the respondents who are associated with fireworks making in the village of Haral along with their nature of work and working conditions and the analysis is done by using tables, charts and discourse analysis.

4.1.1 SEX OF THE RESPONDENTS

Table 4.1.1 shows that from a total of 35 respondents of the fireworkers of Haral, 23 (65.7%) are males and 12 (34.3%) are females. This is consistent with the census data which also confirms that the number of male workers outnumbers that of female counterparts.

Table 4.1.1 Sex of Respondents

Sex	Number of Respondents	Percent
Male	23	65.7
Female	12	34.3
Total	35	100

Source: Field Data (September 2018-January 2019)

The respondents however opined that in comparison to earlier days, the number of village women who can be identified as fireworkers has increased considerably. Majority of the women take up making fireworks as a parallel work apart from looking after the household chores. Though earlier women were only confined to making of fireworks only, now they can also be found as shopkeepers selling fireworks made by them in their houses. However, most of the time such shops is set up in front of their houses or sometimes in one or two rooms of their houses.

4.1.2 AGE GROUPS OF THE RESPONDENTS

Table 4.1.2 shows that out of total respondents 5 respondents (14.3%) are children falling in the age group of 6-14 years, 26 (74.3%) respondents are adults of 18-59 years and 4 (11.4%) falls in the aged category of 60 years and above.

Table 4.1.2 Age groups of Respondents

Age Group	Number of Respondents	Percent
Children	5	14.3
Adults	26	74.3
Aged	4	11.4
Total	35	100

Source: Field Data (September 2018-January 2019)

This means that out of the total respondents, the working age group comprise mainly of those who are adults. But that does not mean that other age-groups are not included in the work. In Haral, children and aged people are also engaged with various work processes, though in varying degrees.

4.1.3 Marital Status of Respondents

Table 4.1.3 illustrates the marital status of the respondents. The majority of them are married. Out of a total respondents of 35, 11 (31.4%) are unmarried,

18 (51.5%) are married and 6 (17.1%) respondents are widowed. However, none of the respondents interviewed have been reported to be divorced.

Table 4.1.3 Marital Status of Respondents

Marital Status	Number of Respondents	Percent
Unmarried	11	31.4
Married	18	51.5
Widowed	6	17.1
Total	35	100

Source: Field Data (September 2018-January 2019)

4.1.4 Caste of the Respondents

Table 4.1.4 shows that out of 35 respondents interviewed, the majority 28 (80%) respondents belong to Scheduled Castes and 7 (20%) belong to General Castes. This again reflects the fact that the village has an overwhelming majority of Scheduled Castes.

Table 4.1.4 Caste of Respondents

Caste	Number of Respondents	Percent
Scheduled Castes	28	80
General Castes	7	20
Total	35	100

Source: Field Data (September 2018-January 2019)

The above table highlights two important features of the village. First the village comprises exclusively of the people of Hindu religious community because caste based stratification is an exclusive feature of the Hindus and secondly, there is no reported existence of Scheduled Tribes residing in the village.

4.1.5 Educational Level of Respondents

Table 4.1.5 shows that the majority of the respondents had formal education between primary and secondary school level. This is because 6 (17.14%) of respondents has no formal education, 17 (48.6%) respondents have an educational background of primary schooling, 11 (31.4%) of the respondents have been to secondary schools and 1 (2.9%) respondent reported to have received education of higher secondary school level.

Table 4.1.5 Educational Level of Respondents

Educational Level	Number of Respondent	Percent
No formal education	6	17.1
Primary schooling	17	48.6
Secondary schooling	11	31.4
Higher Secondary schooling	1	2.9
Total	35	100

Source: Field data (September 2018-January 2019)

It is found that none of the respondents were/ are interested for higher education because they consider that it is much important to have the knowledge of making fireworks rather than receiving formal education because it would help them to sustain their livelihood. However, they opine that they do need to have some basic knowledge of formal education so that they can have a grip over *hisab* (calculations) and therefore do not get manipulated or cheated by others. This partly explains the low level of literacy in the village.

4.2 NATURE OF WORK OF THE FIREWORKERS AND ITS ASSOCIATED WORK CONDITIONS

After analysing the social background of the respondents, the analysis of the work of the fireworkers has been followed by various factors like the nature of classification of their work, division of labour, their alternative modes of work,

if they have been associated with the work for generations, etc. Table 4.2.1 illustrates that though the entire village is associated with the fireworks industry, however the work is concentrated at three levels:

- i. Villagers who work in firework factories;
- ii. Villagers who functions as production cum selling units and
- iii. Villagers who work with the raw materials provided by *aroddar* (stockists), prepare the finished products and hand it back to them.

Table 4.2.1 Categorization of villagers based on their involvement in the fireworks making process

Type of work	Number of Respondents	Percent
Workers engaged in		
factory and independent	5	14.3
units		
Workers functioning as		
manufacturing cum	11	31.4
selling units		
Workers working with		
raw materials provided	19	54.3
by aroddar and hand it		
back to them		
Total	35	100

Source: Field data (September 2018-January 2019)

It is found that in Table 4.2.1, out of 35 respondents, most of them 19 (54.3%) are workers of the third category. It is mainly the women and children, though men are not totally excluded from the category of work whereby they make various kinds of fireworks with the raw materials provided by the *aroddar*. It is mainly due to the fact that women and children, for most of the time, are

associated with the work to supplement their family income, apart from the fact that they can also be employed as sources of cheap labour.

Moreover, some of the women and children also engage in making fireworks for their family who have shops in front of their houses. Women apart from looking after the household chores engage in not only the process of making fireworks but also as shopkeepers. Children, on the other hand, learn to make fireworks by seeing and imitating their parents and acts as helpers to their parents especially during the peak time of the business. The aged members of the family are also engaged with making of fireworks either in order to supplement their family income or out of their love and passion for work in order to continue with their skills of making fireworks.

It has been found out that out of 35 respondents, 11 (34.5%) themselves function as production cum selling units who apart from making fireworks at their home sells them- not only in their own shops, but also supplies them to small-unit factories, distributors and retailers apart from individual customers. 5 (14.3%) respondents work in factories and the factory workers consists of both men and women. However, no children or aged people have been reported to be working in the factories.

Figure 4.2.1 is based on the response of the respondents in Table 4.2.1 who functions as both production cum selling units. They reported that those who functions as such units need capital for procuring raw materials. They seldom have enough capital for making investments in the business. The figure analyses the various sources that the respondents usually cater to in order to arrange for the capital needed for business.

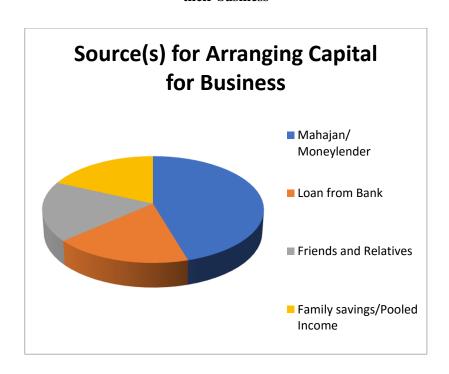


Figure 4.2.1 Various sources from where manufacturing cum selling units arrange capital for their business

Source: Field data (September 2018-January 2019)

Figure 4.2.1 shows that in order to arrange for capital, 11 respondents who function as manufacturing cum selling units arrange the required capital from various sources. Majority of them 5 (45.4%) prefer to lend money from local money-lenders also known as *mahajan* whom they have to pay a high interest while returning back money, 2 (18.2%) arrange from either banks as loans, or from friends and relatives or sometimes even manages to arrange from one own's family savings or pooled family income. However, the respondents report that in spite of the fact that they have to pay a high interest on money borrowed from local lenders, the villagers generally prefer to borrow money from them rather than the bank because according to them, taking loans from bank requires a long procedure of formalities which is much time consuming. Only seldom can they avail loans from banks due to the fact that they rarely have the required papers needed for completing the loan formalities. They also prefer borrowing

money from their friends and relatives, if available because it is easier to return the money back without any hindrances at their convenience. Sometimes they also resort to the family savings made from their business or family pooled income because of its easy availability and returning possibilities.

Table 4.2.2 illustrates about the seasonal nature of the fireworks industry. Out of 35 respondents, all of them agree that the work is seasonal in nature. The peak season of work extends around three to four months starting from September to December when the demand for fireworks is the most due to the various festivals and occasions. Also it is the time when the business reaches its height together with the fact that the weather is ideal for making fireworks. The respondents informed that while selling is a seasonal affair, manufacturing of fireworks is carried all the year round. However, the inconsistent demands make the work full of uncertainties. Such uncertainties drive some of the fireworkers to search for alternative occupations. The table below shows that though the majority 27 (77.1%) respondents have not opted for alternative occupations, 8 (22.9%) of them have to choose an alternate line of occupation.

Table 4.2.2 Involvement of fireworkers in alternate occupation

Involvement in other	Number of Respondents	Percent
occupation apart from		
making fireworks		
Yes	8	22.9
No	27	77.1
Total	35	100

Source: Field data (September 2018-January 2019)

Based on Table 4.2.2, Figure 4.2.2 shows the various alternate occupations in which the respondents is involved besides making fireworks.

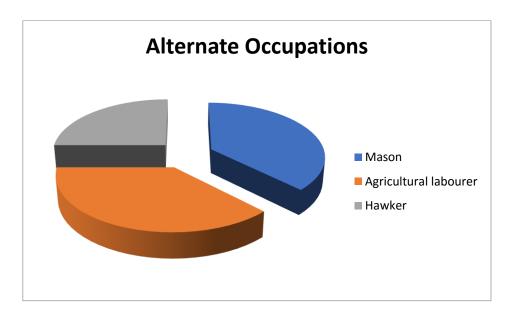


Figure 4.2.2 Various alternate occupation besides making fireworks

Source: Field data (September 2018-January 2019)

It is found that out of 8 respondents who agreed that they are involved in alternate occupations besides making fireworks, 3 (37.5%) of them said that they work as mason either in neighbouring villages or in cities under contractors. Also they work as masons during the construction of huts in their villages. Another 3 (37.5%) of the respondents said that they work as agricultural labourers in the neighbouring villages during the sowing and harvesting seasons. Yet another 2 (25%) of the respondents said that they also work as hawkers selling various items like garments, toys, food times, fruits, vegetables at various places either at Champahati or at platforms or even in local trains. However, they mention that the alternative occupation they are engaged in is to supplement and sustain their family during low times of fireworks business. They do this mainly to save their families from the financial insecurities and uncertainties which would have made their living very difficult, had they only depended on making fireworks. This is due to the fact that there is a great variation in terms of their income during peak and off-season. This

financial inconsistency is aggravated by the fact that the fireworkers have more mouths to feed than more hands to earn a living.

The art of making fireworks has been learnt by the villagers at different times from different sources. Once they mastered the learning of techniques and proportion, most of the villagers have been passing on this knowledge to their subsequent generation. Table 4.2.3 analyses the sources from where they learnt the art of making fireworks.

Table 4.2.3 Sources of learning the art of making fireworks

Sources	Number of Respondents	Percent
Family	20	57.2
Peers	13	37.1
Formal Training	2	5.7
Total	35	100

Source: Field data (September 2018-January 2019)

Table 4.2.3 shows that out of 35 respondents, majority of them 20 (57.2%) have learnt making fireworks within the family, 13 (37.1%) have learnt to make fireworks from friends and peers and 2 (5.7%) have learnt as part of formal training while working in factories. Those who have learnt to make fireworks within the family says that while observing their parents, they too being curious and interested in making fireworks, during their childhood, started as a part of child's play. However, soon they expertised themselves in making of fireworks and as they grew up, in order to help their parents they continued with the making of fireworks. Children too, are influenced by their peers in schools who have already begun to work for the *aroddar*. They often do not attend their school classes, leaving their parents unaware about the fact, and works for the stockists in return for a meagre pay. The only respondents who have received formal training in making fireworks are both, aged and admits that though they learnt the basic skills in the factories, but years of experience made them experts

who can now make a wide range of fireworks starting from *fuljhuri* to *nishiddhoshobdobaji*. In most of the cases however, the respondents have learnt the art of making fireworks on a generation basis and once they inherit the skill, they have transferred the knowledge to the other members of the family on a generation basis.

Based on this fact, table 4.2.4 analyses if the previous generations of the respondents were/are involved into making of fireworks. Out of 35 respondents an overwhelming majority, 33 (94.3%) respondents report that making fireworks has been carried out on a generation basis while only 2 (5.7%) respondents said that their previous generation was associated with some other occupation

Table 4.2.4 Association of previous generation with fireworks making

Whether previous generations	Number of Respondents	Percent
Associated with the same work		
Yes	33	94.3
No	2	5.7
Total	35	100

Source: Field data (September 2018-January 2019)

Table 4.2.4 illustrates that the overwhelming majority respondents admits that they have seen their previous generations to be associated with the making of fireworks. Out of 33 respondents, 26 of the adults report that they have seen their parents associated and 14 out of 26 adults also reported that they have seen their grandparents being associated with the same work. It can be analysed that, making fireworks, in most of the cases is either a two-generation or three-generation occupation. Out of the 5 children respondents, 3 reports that they have seen their grandparents associated with the same work, and two of them reports that only their parents are involved in making fireworks. However, 2 of the aged respondents have seen their parents working in TaaraMaa Fireworks

Factory while one of them reports that his father was involved as agricultural labourer in nearby village of Rajpur. However one of them could not recall about the occupation her father was engaged in before migrating from the then East Pakistan though she recalls her mother used to look only after the family and children. The analysis shows that it is in accordance with the fact that the village of Haral has been associated with the fireworks industry since generations.

4.3 RISK ASSOCIATIONS WITH THE WORK

It is no wonder that the work in which the fireworkers are engaged is different than others in the sense that the materials with which they deal imposes life threatening and fatalistic accidents. But at the same time, the villagers are not completely unaware, even about the minimal risks and it is surprising to see how despite knowledge about the associated risks, the village is still continuing with their present form of work. This section describes why the respondents in spite of the fact of enormous risks associated with their work prefer to opt for making fireworks. It analyses if the workers in particular, and the villagers, at large, are at all aware about the existence of risks which can prove to be fatalistic for them; and if aware why they still remain associated with their present form of work, and if at all, any form of safety measures are undertaken to minimize the risks of fatalistic accidents.

Table 4.3.1 analyses if the respondents are aware that the work with which they are associated involves uncertainties and high risk which makes the nature of their work different from others. Out of 35 respondents 29 (82.9%) agree that the work with which they are associated involve risks while 6 (17.1%) disagreed about the existence of any form of risks associated with their work.

Table 4.3.1 Respondents' opinion regarding association of risks with their work

Opinion on whether this	Number of Respondents	Percent
work involves risk		
Agree	29	82.9
Disagree	6	17.1
Total	35	100

Source: Field data (September 2018-January 2019)

The respondents who disagree the existence of any associated risks with their work, 2 of them are children who because of their tender age, adventurous mind, and risk taking propensities do not consider the hazards as 'risks' at all. However, very interesting similarities in terms of argument are put forward by the adult respondents who too disagreed about the possibilities of risks with their work. They put forward the reason that every form of work has its associated risks and that only making fireworks involves uncertainties and fatalistic risks implies a wrong notion of the outsiders. They were of the view that if one would undertake proper safety measures while working with the chemicals and materials, then one can be sure that there are no chances of encountering accidents while making fireworks. Accidents, according to them are essentially the consequence of negligence while working and those negligent and casual individuals can encounter risks and hazards in any occupation he/she is involved in.

Figure 4.3.1 shows if proper safety measures are undertaken to prevent hazards and accidents while making fireworks. It is found that out of 35 respondents, 33 (94.3%) reports to have undertaken safety measures while 2 (5.7%) say that no safety measures are undertaken at the time of their work.

Whether Safety Measures Are
Undertaken during Work

Figure 4.3.1 Respondents on whether safety measures undertaken while working

Source: Field data (September 2018-January 2019)

In figure 4.3.1, the two respondents who disagreed about the fact that any safety measures are undertaken are the child workers who bunks their school classes and work with other fellow mates for 'secret' suppliers. Their tender age accompanied by innocence and ignorance allows such employers to exploit them in harsh working situation and deprive them of their rights in return for a meagre pay.

However, the respondents who gave a positive response to the fact that safety measures are undertaken while making fireworks mentioned about various ways adopted in order to minimise the risks. They said that while making fireworks in the home, special attention is given to the fact that stoves, *chulhas* or gas cylinders are kept at considerable safe distance the room where the fireworks are made. Even the electrical wiring of the houses and shops are checked at regular intervals to avoid any accidents out of short circuits. Where children are involved with their family in making fireworks, special attention is given and they are kept under surveillance of the parents so that they do not mess up with toxic chemicals. Explosions occur mainly due to the dampened chemicals when are used in making fireworks. So care is taken at the chemicals to make it

remain dry and due to this reason making of fireworks is generally avoided during monsoon season.

In spite of the risks involved and in spite of being aware about it, the respondents forwarded various reasons for remaining associated with the work. Firstly, the weather being dry and hot for most of the time of the year, and the land being infertile, the village of Haral is ideal for remaining engaged in making fireworks. Since it is essential for the chemicals of fireworks to remain dry and the weather of the village is favourable, the villagers of Haral find it suitable to remain associated to the work. Paradoxically, the weather which plays a positive role in helping the villagers to continue with the present form of work is equally responsible for relegating them with absolute minimum options for alternative occupations.

Most of the villages of the country and the state predominantly base their economy on agriculture, but the very fact that the climate of Haral makes it impossible for agricultural activities to develop and flourish, leaving no chance for the villagers to get engaged in agriculture.

Moreover, the art of making fireworks in this village has been transmitted, generations after generations for over half a century and for most of the time, the villagers have learnt the art from their previous generations. The respondents have been associated with the work since childhood, like most other villagers, and the very fact has led to a development of dedication and passion towards the work. This results in continuance of the respondents with their present form of work despite associated uncertainties and risks.

Most of the villagers in Haral are needy people since they lack a sound financial background. Added to this fact, they do not need to go outside in search for employment, whether they work from home under stockists or function as manufacturing cum selling units or work in factory. Moreover if they work

under government's scheme of 100 days work, they receive only Rs 180 per day, but by engaging in making fireworks they earn Rs 300 per day and that too during off season. During peak season they earn as much as Rs 500 per day. Also they can work according to flexible schedules, men and women apart from working in the firework factory can make fireworks as a part of their home based work. Also it facilitates the women to get engaged in the economic process by either making fireworks or selling them in shops, and they can manage to do this even after looking after the household chores during their leisure hours. Children too engage themselves either by helping their parents in making fireworks and that too during their leisure hours. However the children who bunk classes to work as labourers under 'secret' suppliers in making fireworks do this in absence of their parent's knowledge, for having money which would help them to spend for their various forms of addiction-smoking, alcohol, or even drugs.

Figure: 4.3.2 Fireworkers engaged in work irrespective of age and gender



Source: Google Image

Whatever be the reason, the climate of the village, no alternative means of occupation, passion for their work, comparative better opportunities for better earning while being able to remain rooted to their families and village, the respondents have their own explanation for remaining engaged with making fireworks and hence they have justified their grounds for remaining associated with the work despite associated risks and uncertainties.

CONCLUSION

This chapter therefore is about the nature of work the fireworkers of Haral are engaged in. The analysis of the socio-economic background, categorisation of the workers, sources of capital used for business for those who function as manufacturing cum selling units, alternate occupations they are involved in, sources of learning the art of fireworks along with the fact if this work is being carried forward through generations despite its associated risks provide interesting insights regarding the nature of work of the fireworks industry. There is much heterogeneity in midst of homogeneity in the sense that though the village of Haral is identified as "The Fireworkers' Village", but there are underlying categories of differentiation which one evidences upon studying the field. It is found that the workers do not form a homogeneous category; they can be classified on the basis of gender, age, caste, marital status, and educational attainment. It is found that workers comprise individuals irrespective of their gender and age, men as well as women apart from the fact that children, adults and aged all have been engaged with this work. Most of the villagers here belong to Scheduled Castes, and neither there is existence of people of other religion other than Hindus, nor are Scheduled Tribes reported to live over here. The educational level of the villagers is quite low and it is in accordance to the census data which also shows that the literacy level of the villagers is poor. This is partly due to the fact that for the villagers, it is more important to learn the making of fireworks rather than getting education and thereby get involved in some form of work which will help to sustain the family. However for the villagers, it is equally important to have some basic knowledge which will enable them to understand calculations and avoid incidences of being cheated by others.

As far as the work is concerned, there is similarity with the argument of Tiger and Fox who speaks about 'bio-grammar' according to which human beings behave in a certain way according to their genetically based program. There is a form of division of labour as well as categorisation which equally contributes to the heterogeneity of the work. Most of the villagers either work in the fireworks factory, or for the stockists locally called aroddar who supplies them raw materials and takes back the finished product in return for daily payments which ranges between Rs 300 per day during off season to Rs 500 per day during peak season. However, though males also work for them, but it is generally the women and children who work under them because it is a win-win situation for both the parties. The women and children can be employed as cheap labour while for the former working under the stockists does not require them to invest money, rather they are able to supplement for their family income. Of recent, women apart from making fireworks are increasingly getting themselves involved in the family business, and often they are shopkeepers who run the fireworks shop in their house. However it does not relieve them from the domestic works, they can do these works only after completing all their household chores and looking after their family members and children. For the married women it is particularly tougher since looking after the home and business simultaneously often takes a toll on their health. The situation is in accordance to Murdock's argument who said gender roles in terms of work seem to arise out of the biological differences. The aged people also can be seen making fireworks in front of the yards of their houses either out of family's economic compulsion or out of love and passion towards the art of making

fireworks. However, those who work in the factories, they are categorised under three heads- first those who work as daily wage labourer, secondly those who work on a contract basis and third those who work as full time workers. However most of the villagers prefer to work under the first two categories, i.e., as daily wage labourer or contract labourers, because it facilitates them to work on a flexible basis and they can also work for others- be it stockists or for family business. It also facilitates them to have greater income from various sources.

On the other hand, who have their own manufacturing cum selling units needs capital for their business which can range from Rs 50000 to Rs 500000. However, they do not always have the required capital with them as a result of which they have to borrow from various sources. But it is found that on an average, the villagers in such cases prefer to borrow money from the local money lenders or *mahajan* despite the fact that they have to return the money back with a high interest. The villagers, where possible also borrow money from their friends and relatives or takes the family's pooled income and savings but hardly resort to the banks because the formalities, according to them are much time consuming and often they lack the necessary papers required to obtain loan from the bank. Added to this there is also a matter of discrepancy of income whereby it varies according to the seasons for business along with the size of the business. During the peak season the villagers with relatively bigger business in the form of manufacturing cum selling units or home-based business earn as much as Rs 20000 to Rs 25000 per month while the smaller units earn between Rs 10000 to Rs 15000, but it is only for three to four months of the year; for rest of the year, their income varies between Rs 7000 to Rs 10000 for the former and for the latter it is to a maximum of Rs 7000. As a matter of fact, the seasonal nature of the business is no more enough for most of the villagers to sustain their family as a result of which they have to search for alternate means of occupation; sometimes as masons in their own or neighbouring villages or cities under contractors, or as vendors and hawkers in the market of Champahati, railway platform or local trains or as agricultural labourers in nearby villages. But however the workers choose these alternative occupations only as secondary means during times when they are unable to sustain their family.

As far as learning of making fireworks are concerned, there are various sources, namely, family, peers or formal training in factories. Since the villagers in most of the cases have grown up seeing their parents associated with the same work, they naturally have a kind of affinity towards making fireworks. Children while at home often seeing their parents become intrigued and while imitating their parents, unknowingly learns the skill of making fireworks and as they grow up, they become increasingly associated with the work. Children, sometimes, are also influenced by their class mates who offer them to work under the *aroddar*. Thus without the parent's knowledge they are found to bunk the school classes and instead work for absolute meagre pay. Thus it can be concluded that though children are reported to be not working in the factories of Champahati, but child labour continues in disguised form in the village which has a detrimental effect on their health and education. Villagers also come to learn the skill of making fireworks as a result of formal training while working in factories.

As far as the risk associations are concerned, it is interesting to note that why despite the fact of associated risks, the villagers continue with their present form of work. It is surprising to note that villagers are well aware of the fact of existence of risks with making fireworks which can prove to be dangerous and even fatalistic. As Beck proposed in a 'risk society', risks are no more perceived to be risks and are a consequence of man-made hybridity, it can be seen that some of the fireworkers do not even consider these hazards as risks, and opine that every form of work and occupation has its own risks and such risks turn out to be dangerous because of the ignorance or casual attitude of the individuals.

However, if proper safety measures are undertaken, such risks can be minimised to a considerable amount. The villagers report about various safety measures like keeping the fireworks at distance from the stoves, *chulhas*, or gas cylinders while working at home, regular monitoring of the electrical wiring of the home and shops to avoid short circuits, proper surveillance of the children at the home while they work with their parents, keeping the chemicals used to make fireworks dry and free from damp and by avoiding making of fireworks during monsoon are adapted to minimise the risks of fatalistic accidents.

Despite having knowledge regarding the associated risks the villagers have their own reasons for remaining engaged in making fireworks. The hot and dry climate of Haral which is so ideal for making fireworks has its own disadvantages because it limits the option of the villagers to get engaged in any other activities including agricultural activities. Apart from the love and passion for the work they have been associated with their childhood, the very fact that this work provided opportunities for more income as compared to government's scheme of 100 days work while being able to remain rooted to their family and village is what keep this villagers associated with this work. As per Rational Choice Theory, man's action is rational in so far as he or she can explain his/her action in terms of reason. Hence it justifies the generation based transfer of knowledge regarding making fireworks and it becomes clear that once the villagers learn the art of making fireworks, they master it and transfer the knowledge to the other family members through generations as it has continued for more than half a century and thus being able to maintain its identity as a fireworkers' village.

Figure 4.3.3 Fireworkers Engaged in various stages of the Work process







Source: Google Images and Field Images

CHAPTER FIVE

CHALLENGES AND NEGOTIATIONS

IN THEIR WORK

INTRODUCTION

This chapter is based on the changing forces which is having an impact on the work of the fireworkers and their lives. It is no doubt that change is an inevitable process and every phenomena in the society, at one time or the other, encounter hindrances which restricts its development along the course. However individuals adapt themselves to the changed situation and thereby help to maintain equilibrium in the society. Workers, too, in the process of their work may encounter various forms of forces which hinders their work. The fireworkers are encountering various factors like changing demands for newer forms of fireworks, ban on the use of traditional popular forms of fireworks which emits noise above 65 decibels, increasing competition in terms of demands for different forms of fireworks which are sold in baji mela or fireworks fair held at various places in Kolkata and also increasing infiltration of the market with fireworks from Sivakasi and Chinese fireworks are all putting an increasing pressure on them. However the fireworkers are also finding their own ways to adapt themselves with the changed situation. This chapter is based on the analysis of various challenges put forward before the fireworkers in the course of their work and the various ways in which they negotiate and adapt to the changed conditions at work.

5.1 CHANGES AND CHALLENGES: ADAPTATIONS AND NEGOTIATIONS

According to the data obtained from the respondents, there is a difference in terms of demand for the types of fireworks among the customers. Even seven or eight years back there was an enormous popularity for the traditional fireworks like fuljhari, rangmashal, tubri, charki along with shobdobaji like pataka, chocolate bomb etc among the customers of various ages, but with changing times the demand has risen in terms of newer and fancy forms of fireworks like butterfly, whistling charki, shots of various kinds, flower pot, generator baji to name a few. Also the market of the village is facing stiff competition in the face of infiltration of 'fancy' fireworks from Sivakasi and Chinese fireworks. The workers feel that this can seriously hamper their business and in order to remain stable in the business they too need to keep themselves updated with the newer forms of demands of the customers. They do this by means of experimentation with the chemicals used in making these fancy fireworks. For instance, some of the respondents reports that they order 'fancy fireworks items' from Sivakasi or Chinese fireworks, and then in their workshops they carefully examine the chemicals along with its proportion. On availability of the required chemicals, based on their estimation they conduct a series of experiments to get that perfect ratio for making the particular firework. In other instances, if any of the required composition is missing they experiment with other chemicals for getting the exact effect of the firework. However these experiments, often based on guesswork and lack of proper training and experience lead to accidents; at times minor, at other times fatalistic. It is interesting to note that if any worker dies in an accident, to avoid issues by local police, the body is buried and if any worker in injured during the work, they are immediately taken to secret spots where they have fixed doctors to treat them.

Moreover, the respondents report that of recent, there has been a stiff competition in their business market before Kali puja or Diwali when baji mela are organised in Kolkata with various options of fireworks to the customers previously unseen or unheard of. Though less than a decade back, most of the fireworks in Kolkata and adjoining districts were supplied from this village, but now their inability to keep pace with the demands for newer forms of fireworks has led the distributors and retailers in Kolkata to look for alternate supplier who will be able to cater to their demands. Added to this, the introduction of GST in 2017 has led to a considerable increase in the cost of raw materials and chemicals used to fireworks which subsequently has led to the rise in price of the fireworks being sold. However, the respondents, at the same time, contends that in comparison to the fireworks sold at other places, their price is still at a minimum because the entire process- starting from making of fireworks to packaging is done within the village itself. The reasonable price of the fireworks makes it popular among the customers- be it the retailers or the individual customers. Babli Debnath, one of the female respondents who besides making fireworks also sell them in her permanent shop said, "A person even with the minimum budget imaginable would not go empty handed after entering Haral."

The ban on fireworks producing more than 65 decibels by West Bengal Pollution Board (WBPCB) along with the Pingla Bomb Blast incidence in Medinipur, 2015 has put serious restrictions on the fireworkers. However the respondents reveal that besides the permissible fireworks, there is a huge demand for *shobdobaji* like *pataka*, *chocolate bombs*, *dodoma* etc among the customers of various ages. The local police are aware of the fact and they put raids more frequently before Kali puja and Diwali. The respondents also reveal in a complaining mode that in order to avoid any police issues, they have to give some amount of money as *ghush* or bribe to the police. This consequently, again, leads to the rise of price of fireworks. For instance, one of the

respondents said, "In order to do a business of fireworks worth Rs 5000 to Rs 6000, we have to pay a bribe of around Rs 15000 to Rs 20000 to the local police to avoid any issues. This is leading to unnecessary escalation of the prices of the fireworks." Such changes and challenges are putting extreme pressures on the business and gradually it is becoming difficult for the businessmen, more particularly, the small-scale ones to continue with their business. Today villagers are no longer confined to the work of making fireworks only, rather they have diversified their activities; people are now doing business of raw materials needed to make fireworks and are also working as suppliers to the market outside.

Added to this, is the fact that earlier a villager individually used to carry the process of making fireworks alone-starting from mixing of chemicals to packaging the fireworks in colourful boxes. But now, in industries as well as home-based work, the need for increased yield in the face of stiff competition, has led to the fragmentation of the tasks. Earlier the worker had the satisfaction of making a firework all by himself/herself but now the fragmentation of the tasks has led to the development of a sense of alienation from the work, most of them no more feel any connection existing between them, their work and the product of their labour, leading to a sense of frustration whereby they realise that their love for their work has been replaced by profit motive and their labour has become increasingly commodified. This however, leaves them unsatisfied because the urge to earn more and profit motive is making them distant from others- family, friends and relatives. It can be seen that the adoption of the principles of Scientific Management of Taylor or that of assembly line concept of Fordism is creating a sense of distancing of the fireworker from his work, his relations and his own self.

The various challenges put forward in the course of their work are worsened by the fact that there have been no governmental initiatives towards the development of their working conditions. The respondents reported that the roads of the village are not properly taken care of and lacks maintenance. In fact, as the respondents can recall, the last repair of the road was made more than ten years back and that too by a private factory nearby who repaired it so that their finished products can be transported through the road. Potholes have become a major issue of concern and the roads are getting corroded and worsened due to rainfall every year. However, this is a major issue which has been overlooked over the years by the local governmental authorities. Also there is no school and hospital in the village and one has to travel couple of kilometres for either going to schools or hospitals. This imposes a serious situation when any of the villagers gets seriously ill and has to travel a long way to avail medical facilities.

Apart from the infrastructural negligence which is also a challenge for the villagers, the government also did not undertake any proper measures for the development of the business in the village. Neither the villagers are provided any vocational training regarding making fireworks where they can also be taught about regarding various safety measures which is necessary to undertake while doing their work. Also no effort has been undertaken to make the workforce's right to safety more pronounced and effective, thereby leaving them in a vulnerable situation-open to exploitation, uncertainties and risks.

As far as the non-governmental organisation is concerned, the respondents unanimously reports about the absence of either any NGOs or local clubs, who would look after their grievances and work for their development. Villagers also lamented the apathetic attitude of the Panchayat who do not involve themselves towards the development of the villagers.

CONCLUSION

It is seen that the challenges which are forwarded by the changing conditions and demands are brining an inevitable effect on the work patterns of the fireworkers. But it is equally interesting to note how the workers are adjusting and thereby negotiating with the changed conditions and challenges therein. A number of factors like demands for newer forms of fireworks on the part of the customers, ban on those fireworks which emits noise of more than 65 decibels but at the same time demands for shobdobaji by the customers, increasing competition put forward by the Baji Mela held in Kolkata accompanied by increasing infiltration of Haral's business market by Chinese crackers and fireworks from Sivakasi, imposition of GST on raw materials which is leading to increase in price of the finished products are some of the major challenges which is bringing the fireworkers to reconsider the way they have been working for generations. Moreover, the frequent raids of the police are an added concern for the villagers apart from the fact that they have to give bribe to local police so as to avoid any police issues. As reported it is seen that the fireworkers often have to pay almost three times the bribe as regards the cost of the fireworks. This is leading to an unnecessary escalation of prices of the fireworks. Police raids are also a concern for the villagers due to the fact that the poor villagers who work under the stockists get arrested while the stockists or aroddar generally elopes from such raids and arrests because they have money power and 'local connections'.

In spite of such challenges imposed in their way of work, the fireworkers have devised a number of ways to adapt themselves to the changed scenario. What is the need of the hour is to manufacture fireworks at a cheaper rate within lesser time so that they can continue with their popularity among the customers. The villagers are coming up with various ways like experimentations with the chemicals used to make fancy fireworks, illegal way of making and selling of

shobdobaji to the customers at secret places, bribing the police officials to avoid any issues. But above all, the kind of change that the fireworkers are adopting is to fragmentise the work process. Since the making of fireworks involves only human labour and no mechanization, so the only way to increase the yield per worker is fragmentation of the entire task. However such kind of fragmentation is leading to feeling of alienation among the workers who do not get any satisfaction from being attached to only a specific part of the production process. The workers who deal with the raw materials do not know how that finished product would look like. On the other hand, the worker, who is involved with packaging, does not know about the composition that goes into the making of fireworks. The worker seems to be getting alienated ultimately from the product of his labour and this is leading to the development of frustration among the workers. Moreover, the continuing concern among the fireworkers for profit is also distancing them from their family, relatives, their work and above all, their own selves, leading to ever more growing sense of alienation and frustration. Such impacts have been discussed in detail in the chapter six whereby the impact of the work on the family, relations and workers have been elaborately analysed.

Added to such challenges, is also the fact that the discontentment of the villagers is aggravated by the apathetic and negligent attitude of the government, non- governmental organisations, and local authorities including the Panchayat. The narrow roads of Haral have not been properly taken care of for more than a decade and the conditions of the potholes get worsened every year due to rainfall. Also the villagers say that if the government would have arranged for special training courses, better safety measures could have been adopted by them. The government has neither supervised towards the development of other infrastructural facilities like education and healthcare facilities and the villagers have to commute several kilometres for availing such

CHALLENGES AND NEGOTIATIONS IN THEIR WORK

services. The villagers feel that government could have been more careful in ensuring the workforce's right to safety by making it more pronounced, however the negligence has made them even more vulnerable to exploitation, uncertainties and risks. Also the villagers do not have any non- governmental organisation or local clubs who would look after their grievances and work for their development. Even the Panchayat is apathetic to the village and it is clear from their level of detachment from the village and the villagers. Such negligence is adding to the existing burden of challenges that the fireworkers encounter in their work.

CHAPTER SIX

THE IMPACT OF WORK ON THEIR FAMILY AND RELATIONS

INTRODUCTION

Chapter six is about analysing the impact that the work of the fireworkers has on his/her family and associated relations. But it is also about the analysis of the consequence of the changes and challenges towards the workers' family. This chapter would also look at if the workers themselves or for their subsequent generations are, at all, eager to continue with their present form of work. But the analysis would remain incomplete if it does not take into consideration the impact that the work has, above all, on the worker himself/herself. The next section is about analysing the importance of the work life for worker's family and associated relationships.

6.1 SIGNIFICANCE OF WORK LIFE FOR THE FAMILY AND ASSOCIATED RELATIONSHIPS

This section is about the impact that the work has on the family of the workers. It tries to analyse if the family members, too are associated with the same work; the level of involvement of the family members in the work; if any form of division of labour is found within the members of the family while making fireworks. But before that it is essential to understand what motivates the fireworkers to get engaged in this particular form of work despite associated risks.

Table 6.1.1 analyses the various factors that motivated the respondents to engage in the work of making fireworks.

Table 6.1.1 Motivating reasons for working as fireworkers

Reasons for getting	Number of respondents	Percent
motivated to work as		
fireworkers		
Affinity from learning		
the skill of making	18	51.4
fireworks within the		
family		
Financial crisis within	15	42.9
the family		
Peer influence	2	5.7
Total	35	100

Source: Field data (September 2018-January 2019)

Out of 35 respondents 18 (51.4%) says that they have mastered the skill of making fireworks since childhood within the family, and by observing their parents. Since then they have developed an affinity towards making fireworks. However, 15 (42.9%) of the respondents says that the situation of financial crisis within the family prompted them to take the work of making fireworks. This is due to the fact the village does not provide sufficient options for alternative occupations and it is also not possible for them to go to distant places in search of work, leaving their family back in the villages. However, 2 (5.7%) respondents, both of them children admitted that their classmates influenced them to get associated with making fireworks under secret suppliers in return for which they get money. These two child respondents also admit that their parents are not aware about the fact of their working. Added to this, being able to earn is what keeps them motivated to remain involved in this work.

This analysis shows that apart from the fact that work has impact on the family of the worker, it is equally true that in most of the cases it is the family that motivates the worker to get initiated into the present form of work. Children while imitating their parent's work learn the art of making fireworks, because according to them, it is more important to develop an affinity towards the work than to get engaged in making fireworks for the sake of work itself. Also most of the villagers of Haral do not have economic sufficiency. This economic crisis compels them to get initiated into this particular form of work. As a result most of the villagers since their childhood have been associated with making fireworks and its associated process.

Figure 6.1.1 illustrates whether the family members of the workers are also involved in making fireworks. It is found that majority of the respondents 23 (80%) agree that their family members are also involved in the work and only 7 (20%) respondents reports that they alone are involved with the work. However, out of 7 respondents, 5 of them (all male respondents) say that their either parent/ parents were associated with the work and that neither their wife nor children are associated with the work in any way.

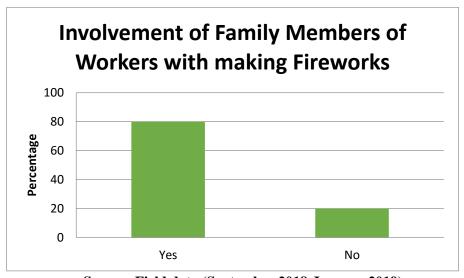


Figure 6.1.1 Involvement of the family members with making of fireworks

Source: Field data (September 2018-January 2019)

In figure 6.1.1, out of 28 respondents, 11 (39.3%) reports that it is their family business whereby they procure the raw materials from different places, makes the fireworks and sells off the finished products to different customers ranging from retailers to individual customers. The rest either work for the stockists or in factories. However, they are of the view that there is a kind of division of labour on the basis of age and sex. As far as work on the basis of gender is concerned, it seems that Tiger, Fox, Murdock or Parsons have rightly associated division of labour on the basis of gender. Gender roles are assigned on the basis of biological make up and hence in the village of Haral, men are involved with the 'more risky' job, work which requires more labour and involves high risks in the making process, for example in the making of tubri, pataka, chocolate bombs, generator baji etc. Despite all the restrictions, they involve in making of those risky fireworks in illegal ways and at secret spots. Women, on the other hand, are concentrated in tasks which are perceived to be less toiling and less risky, for example making of fuljhuri, charki; they also involve themselves in the processes of labelling and packaging the finished goods. But neither Oakley nor Friedl can be ignored when they opines that it is culture rather than biology that determines gender roles. Of recent, the women who are involved in the family business, are also found as shopkeepers, more during the peak season of the business, mainly for assisting the male members of the family. Earlier women in the village would remain pertained as helping hands in the process of making fireworks, but the gradual increase of their involvement as shopkeepers is an evidence of their increasing involvement and participation in the economic process of buying and selling along with the increasing importance in the decision making process of the family. But it does not free them from the burden of looking after the household chores. Besides looking after their children and family; doing all the household tasks can they afford to get involved in the various processes of fireworks business.

Figure 6.1.2 Women engaged in various roles- as fireworkers and shopkeepers





Source: Google Image

However, children who are engaged in making fireworks have a negative impact on their health and education. As far as education is concerned, of recent there is report of serious hamper because though they generally do not drop out of schools, but a tendency has developed whereby the children bunk their classes under the influence of their classmates manipulates them to work for illegal secret suppliers. In return for a huge and risky assignment, they are given a meagre payment which ranges between Rs 150 during off season to Rs 300 during peak season of business. However, for the children, this payment turns out to be quite lucrative. Besides it is also having an impact on their health due to the fact that the money that the children are earning, they do not inform about it to their parents. Rather they are getting entrapped in various kinds of illegal forms of addiction-smoking, alcohol and drugs. Such addictive elements especially alcohol and drug are supplied by local rackets at secret spots of the villages. Such kind of addiction is putting strains on the relationship between the child worker who works for secret suppliers and their parents especially when their parents come to know about their association with such illegal works.

However, the children of the village, besides going to school also help their family and parents in making of fireworks. This is particularly true in case of home based work where their parents have manufacturing cum selling units or when they work for the *aroddar*. The process starts at six or seven years of age while imitating their family members and soon they find it interesting as a result of which gets involved more and more. Risk factors are also involved in the work in the sense that the raw materials which are needed to make fireworks are very poisonous and children are more vulnerable to such chemicals. Prolonged exposure to *sodha*, *gandak*, etc leads to problems of respiratory diseases, skin rashes and also lack of proper knowledge and training leads to improper mixing and pouring of the explosive chemicals which might lead to fatalistic accidents.

Though the aged members of the family are also involved in the firework business in case of home based work, they are not employed in factories as such due to safety reasons. However, even when the aged members work in the family, proper safety measures are adopted in the sense that other family members generally assign them with work which is comparatively less strenuous and risky. Moreover, their experience and expertise is always sought after by the other members of the family who are also involved in the same work. In the village of Haral, when making fireworks has been a generation based work, it is usual for the other family members to keep the elderly members with high regard because of their knowledge and skill. This is one of the reasons why in Haral, most of the families are joint; respect for skill keeps the workers and the family members together irrespective of their age.

6.2 IMPACT OF CHANGING CONDITIONS OF WORK ON FAMILY AND RELATIONSHIPS

As has been observed in Chapter five, the challenges out of changes are putting an inevitable impact on the workers' lives which subsequently bears consequence on their family and relationships. Haral has always been popular among the customers for the variety of fireworks at reasonable prices. Even the villagers boast that a person with the minimum money imaginable would not go empty-handed without fireworks. But a series of factors like demand for new and fancy fireworks, ban on fireworks emitting noise of more than 65 decibels, growing popularity of *baji bazaar* in and around Kolkata, infiltration of the local market with Chinese fireworks and fireworks from Sivakasi, frequent raids by local police along with the need to provide them with bribes in order to avoid unnecessary issues which would hamper their business, introduction of GST which subsequently led to the rise of costs of raw materials and finished products are increasingly making it difficult for the villagers to keep up to their words of being able to provide the fireworks at a reasonable price. But at the same time, they realise that they need to put a check on the increasing price of the fireworks because otherwise their business and the fireworks industry of the village, at large will jeopardised.

The only way to survive the competitive market and retain the fireworks industry in the village is to increase the productivity per worker. However, increasing production is much easier in industries which involve use of machines. But the fireworks industry is a small scale industry where there is no scope for mechanisation and the entire process- starting from procuring raw materials, mixing of chemicals to packaging needs only human labour to get accomplished.

However, the villagers have found a way out to increase productivity per worker by following a replica of the model of Taylorism's scientific management model or that of Fordism's assembly line model. It is fragmentation of tasks involved in the process of making fireworks. Earlier a single worker would be involved in the entire process of making fireworks, that is, from mixing of chemicals to packaging which would give him/her satisfaction of creating a product. But the fragmentation of tasks, be it in factory

or home based work, is alienating the worker from the product of his own labour. As Karl Marx has talked about alienation of the labourer from the product of his labour, or as Robert Blauner propounded regarding the association of the production technology as the influencing factor of worker's alienation, it is found that the worker who deals with the raw materials does not know how the end product would look like, similarly one who deals with packaging does not know the composition of the particular firework. The satisfaction that they could have earlier in their work is no more there with the fragmentation of tasks followed in the assembly line pattern of work. This fragmentation, in fact, is making them more and more alienated from their work and is consequently giving rise to frustration.

This sense of alienation and frustration is worsened by the associated fact that in order to increase production and income, the villagers have to give up their leisure hours, thus the scope of spending time with their families is shrinking. According to Parker's concept of 'extension pattern', whereby there is no clear line of division between work and leisure, most villagers in search for added source of income are trying to work for more hours and there is no fixed hours of work and leisure for the workers. This is becoming a source of alienation from their family members and relations because their urge for profit motive is shrinking their hours of leisure and relaxation, distancing them from family, friends and relatives. Thus a kind of intersection between the work and leisure hours, driven by urge of more production and more income is ultimately alienating them not only from the products of their labour but also their family and relations, producing a sense of discontentment not only among the workers, but their family as well.

6.3 CONSEQUENCE AND CONTINUANCE OF THE WORK: WILLINGNESS OR UNWILLINGNESS?

This section analyses that the changes and challenges involved in the work of the fireworkers is having an impact on the worker's family and relationships. But it is not lesser than true that such impact is inevitable on the part of the worker. Apart from growing sense of frustration and alienation from work and family relations, it is an increasingly becoming a question as to whether they are at all willing to continue with their present form of work in the future. Not only that, it is equally important to understand if they are, at all, interested for their future generations to continue with the present form of work.

The respondents, though themselves are eager to continue with their present form of work, feel that if they continually face such challenges, changes and negative impacts on their life and family; and bombarded by problems in the future, it would become difficult for them to continue with their present forms of work, or might be forced to find alternative forms of employment. They might even opt their children out of the present of dominant form of work in the village which has continued for generations. This is depicted by the tables 6.3.1 and 6.3.2

Table 6.3.1 Respondent's willingness regarding continuing with present form of work

Workers willing to continue	Number of	Percent
with making fireworks	Respondents	
Yes	18	51.4
No	10	28.6
Unsure	7	20
Total	35	100

Source: Field data (September 2018-January 2019)

Table 6.3.2 Respondent's willingness to shift to other occupation

Respondent's willingness to shift to	Number of	Percent
other occupation, provided a chance	Respondents	
Yes	6	17.2
No	4	11.4
Unsure	25	71.4
Total	35	100

Source: Field data (September 2018-January 2019)

It is found that in table 6.3.1, out of 35 respondents 18 (51.4%) wants to continue with their present form of work of making fireworks. However, 10 (28.6%) though still are continuing with their present form of work are not interested to continue it further. But an interesting aspect is brought to the forefront by the fact that some of the respondents 7 (20%) are even unsure about whether they would like to continue with their present form of work. This feeling of insecurity and uncertainty is also seen in Table 6.3.2 whereby out of 35 respondents a huge majority shows indecisiveness regarding decision on whether, provided with opportunity, they would shift to some other occupation. 25 (71.4%) respondents are unsure, 6 (17.2%) would definitely shift and another 4 (11.4%) would not still shift to some other occupation even if provided with opportunities.

Tables 6.3.1 and 6.3.2 present a paradoxical picture because a majority of the respondents wish to continue with their present form of work but when counterasked by giving a hypothetical situation, there has been stifling in terms of responses. In order to cross verify the reliability of their responses regarding their willingness to continue with the present form of work, it was asked if they would prefer their children to continue with the same work. Table 6.3.3

analyses the respondents' willingness about their future generations to remain associated with the present form of work.

Table 6.3.3 Respondents' willingness on their future generations regarding continuance with the present form of work

Willing their future generation to	Number of Respondents	Percent
remain involved in the same work		
Yes	8	26.7
No	10	33.3
Unsure	12	40
Total	30	100

Source: Field data (September 2018-January 2019)

This table has excluded the child respondents and therefore the analysis is based on the remaining respondents which include the adults and the aged. The children have not been included because they have not reached an age whereby they can form decision regarding their future generations. However, out of the remaining 30 respondents, 8 (26.7%) only opine that they would prefer their children to remain associated with the same work- making fireworks. However, out of these 8 respondents, 4 are aged respondents, who already have their children associated with making fireworks. However, another 4 belong to the age category of adults. Again another majority 10 (33.3%) and 12 (40%) of the respondents are either not interested to see their children associated with the same work or are unsure if they can provide their children or future generation with alternative sources of work and a better means of livelihood. Growing distrust regarding the ability of the present form of work to be able to sustain their family and future generations is reflected by the analysis and there is much room for question and doubt regarding if the fireworkers are really associated with their present form of work out of willingness or is coerced by various

factors to remain associated despite various risks, uncertainties, problems and challenges.

CONCLUSION

It is found from the analysis that though the work patterns have an impact on the life of the worker and his family, it is equally true that family also have an influence on the work patterns of the fireworkers. As seen in analysis apart from peer influence, the fact that the workers have been learning to master the making of fireworkers within the family by seeing their parents is what that has contributed towards the development of affinity towards the work. The absence of economic viability of most of the villagers of Haral has in a way driven the workers towards the work at a tender age. Family, in fact, plays a part in motivating the workers to undertake this particular form of work and continue with it despite the associated risks.

On the other hand, the work patterns equally have an impact on the life of the worker and his/ her family. Most of the villagers have their families associated with making of fireworks. In some cases, as it has been seen earlier, villagers work for factories, for *aroddar* or as a part of home-based work. It is found that though the members of the family have been working together, there is a division of labour on the basis of age and sex. The women are generally associated with those work in the firework making process, where there is a need for comparatively lesser labour and which involves lesser risks and danger like making of *fuljhuri,charki*, or packaging the finished product. On the other hand, men are associated with more risky and laborious works like making of *tubri*, *pataka*, *generator baji* etc. Such works always imposes the risk of fatalistic accidents. Of recent, women are also seen working as shopkeepers, and this implies growing importance of the female members within the family, since more and more women are being increasingly drawn into the economic decision making process which was earlier the exclusive prerogative of the male

members of the family. However, the women can only afford to do this after looking for their family members and other household chores. This puts much pressure on the health of the women fellow workers. This shows that though there have been changes in function according to gender roles, but the gender roles have not changed as such within the village.

The children on the other hand are influenced mainly by their families or peers. Either the child grows up by se

eing their parents being associated with the same work which motivates them to undertake the work in the form of imitation. Once they learn the art, they work in a full-fledged manner and even assist their parents during the peak season of the business. Moreover, the children also get motivated by the peers who work as labourers for the secret suppliers. They bunk the school classes, and works for such suppliers in return for a meagre wage which varies between Rs 150 per day during off-season to Rs 300 per day during peak season. However such pay is lucrative for the children who continue with the risky work without informing their parents. However, they are falling prey to various illegal rackets of alcoholics and drug peddlers who supplies them addictive materials for money and are operative at various secret spots of the village itself. This very fact creates tension among the relationship of children and parents, once they come to know about it. However, within the family they work under supervision and parental control and it helps in the development of a positive relation between the children and the parents. The aged generations are highly respected by the other family members because their knowledge and expertise is passed on to the subsequent generations. This kind of mutual understanding among the members of the family is what that helps in the continuance of the joint family; however, nuclear family is not totally absent in the village.

The recent challenges imposed by the changing condition of the work have its major impact on the workers and their family. The growing competitive nature of the business market in Haral is forcing the villagers to keep the price of the fireworks at a minimum. Also they need to increase the level of production. However such increase in production is easy in industries with mechanization. But firework industry is one such instance where the entire task involves only the use of human labour. So it is important for the workers increase their productivity manually. However, the villagers have found a way out by fragmentising the various works involved in the process following the principle of assembly line. However, such adoption of principle is leading to development of frustration and alienation of the workers from the product of their labour, because due to the fragmentation of the tasks, the workers are associated with only a particular part of the process, which no longer gives them the satisfaction of making a product all by himself/ herself.

Moreover, the need to increase the yield and income has also led to the intersection of work and leisure hours among the workers. They need to work not only during the working hours but also whenever they get time for making fireworks. This leaves them with no scheduled hours of working and it is equally true for most of the villagers. This is increasingly becoming a source of alienation for the workers from their family members and relations because their urge for profit motive is shrinking their hours of leisure and relaxation, distancing them from family, friends and relatives. Thus a kind of intersection between the work and leisure hours, driven by urge of more production and more income is ultimately alienating them not only from the products of their labour but also their family and relations, producing a sense of discontentment not only among the workers, but their family as well.

Such discontentment is reflected by the fact of whether the workers are willing to continue with their present form of work and if they are eager for their future generations to be associated with making of fireworks. Though most of the time, the workers are eager to continue with their present form of work, but they

lament that if they are continuously bombarded with problems and challenges, then they might have to give a second thought regarding whether they should continue with their present form of work. This truth is equally reflected in the fact that most of them become unsure regarding whether they would remain associated with making fireworks, if they are provided with alternative occupations in the village. However, their discontentment is highly reflected through the fact that most of them do not want their children or future generations to remain associated with this particular form of work. The growing distrust among the workers regarding the sustenance ability of the present form of work is reflected by the fact and there is much room for question and doubt about the willingness and unwillingness of the workers with their present form of work despite various risks, uncertainties, problems and challenges.

CHAPTER SEVEN

CONCLUSION

Chapter Seven has been divided into three sections- the first section is about the summary results and generalisations on the basis of data being analysed. Here, apart from the findings of the analysis, observation and information which formed part of the additional data cues have also been taken into account. The summary findings have been put forward in accordance to the research objectives of the study. The second section is about presenting the limitations of the study. It is no doubt that in spite of making considerable effort towards making a comprehensive study, however there are certain loopholes and drawbacks which have been pointed out in the section of the chapter. The last section is about providing future directions of research. What I believe is that the study is extremely potential in the sense that it can pave the way for the interested scholars and researchers to work in this area and come up with interesting areas of research for exploration.

7.1 SUMMARY FINDINGS

The study began with some research objectives based on the research problem, according to which the data have been collected and analysed. This section presents the reader with the summary findings whereby one will find that the study has been arranged in to different chapters according to research objectives. The chapters have been formed keeping in view the six research objectives. Though chapter one is about introduction whereby the research problem, research objectives, rationale of the study, methodology of the research and chapterization has been presented and Chapter Two is about reviewing existing literature and theoretical frameworks along with conceptual issues; however, Chapter Three, Four, Five and Six has been written keeping in view the research objectives, based on which the data have been analysed. The summary findings have been presented in the chronological order keeping at par with the above mentioned chapters. Moreover, the reader will find that the various findings have been validated by the theoretical frameworks which have been reviewed in Chapter Two.

Chapter Three is based on the first objective of the study whereby I have tried to reconstruct the past of the fireworkers' village of Haral, however primary and secondary materials, both have been used for analysis purpose. Tracing the past of the village would not have been possible using primary data alone. Secondary data, mainly in the form of internet reports and journals have been used to cross check the authenticity of the findings based on data provided by the respondents. Even that primary data from the respondents regarding this issue has been cross verified by the interviews of the *Pradhan* and *Upa-Pradhan* of the Champahati Village Panchayat as well as the President of the ChampahatiHaral Fireworks Business Association.

The study shows that the village of Haral in Champahati did not develop until the 1950s. The village did not even exist in the form as we see it today. Some hundred years back, during the pre- independence period, the village was area where Bidyadhari river had its course of flow; the region was full of wild animals, mangroves, shrubs, forests and epidemics. Besides the weather was hot and dry, therefore no traces of agricultural activities was to be found and thus it was absolutely unsuitable for human habitation. But with years, the river changed its direction and stopped flowing over the area, leaving the place not only hot and dry but also arid, infertile and unsuitable for cultivation. However, people from adjacent villages and even from Bangladesh during partition years fled to this area, started clearing up the forests and shrubs and soon turned it into a habitable place, today known as Champahati. However, the villagers were unable to develop agricultural practices because of the unfavourable climate and arid land, leaving them no option but to live in dire poverty and frequent epidemics.

However, soon later the fate of the villagers of Haral along with some of the adjoining villages of Champahati changed when in 1950, Raimohan Dutta, a merchant from Bhawanipore of the then Calcutta, after buying 50 bighas of land including the ones used for transportation set up the first fireworks factory named TaaraMaa Firework Factory. The weather being hot and dry in the area proved to be advantageous for the owner who could also avail cheap labour from the village and trained them regarding the art of making fireworks. It was a win-win situation for both the ends as the villagers also found a means of subsistence after getting employment in the factory. The factory flourished but only till the 1990s when a series of events gave a serious hit to the business and the Dutta family permanently shifted to Bhawanipore in Kolkata. However, by then, the villagers of Champahati have identified the making of fireworks as their only source of income and started to make the fireworks even at their home besides working in factories. Though the fireworks were and are made in three villages of Champahati- Haral, BajeHaral and Begumpur, but soon the

village of Haralsurpassed the other two villages in terms of production of production of fireworks and became familiarized as the village of Fireworks and Fireworkers.

Today almost 5000 manufacturers and sellers are associated with the business of fireworks. Among the major factories of the area are MaaTaara Fire Industries, Satyanarayan Fire Industries, Chandimata Fire Industries, Kalpana Fireworks Industries and Pratima Fire Industries apart from innumerable small scale factories. Among them only, 11 have the license to manufacture and 180 have the license to sell fireworks. Haral alone accounts for 136 license holders who are manufacturing and selling fireworks. Rest are aware about the fact that the police may pay a visit anytime. Today almost all the villagers are associated with making of fireworks and its associated business in one form or the other.

Firework Industry developed as a cottage as well as small scale industry. The main manufacturing units are located in Chanditala and the main stretch of business extends from Chinemore in Champahati. Various brands of fireworks like Burima, Exide, Assam, Meghalaya, Darjeeling, Andhra, Kerala and Sivakasi are produced. But the production and manufacturing is no more limited to the factories alone where the villagers are working as labourers, but today many of them make fireworks as a part of home based work as a part of their family business with their own shops in their houses or work with the raw materials provided by the suppliers and return the latter back the finished products.

However, on tracing the past of this village, even though making fireworks was the only activity for the villagers since 1950s, but A.K. Das's study does not mention about this occupation as the major economic activity despite mentioning about South 24 Parganas along with three other districts in 1960s and 1970s because of the fact that it was only after 1993-94 that making fireworks was identified as the chief occupation of the villagers after the shut-

down of Raimohan's fireworks factory; when the villagers in order to make a living started making firework even as part of their home based work. Today on tracing the generations through which this work has been continuing down to the present, in most of the cases it is found to be a three-generation based work who are continuing to make fireworks over the years.

Although Baruipur and Canning are adjacent to Champahati, the firework industry did not develop and flourish in either of these places. This is due to the fact that the climate in Champahati and specifically Haral is hot and dry for most of the time of the year. The groundwater level here is below 1100 feet so the weather remains damp free. It makes Haral ideal places for making fireworks because the weather here facilitates the ingredients and chemicals of fireworks to remain dry. On the contrary, if the weather would have been damp and wet, making of fireworks would not have been possible because it would have led to more frequent accidents. On the other hand, Baruipur has a damp weather and groundwater is also available at 100 feet depth. On the other hand, Canning being close to coastal area has a salty weather which is not at all ideal for making fireworks because the chemicals might get damaged. Because of these factors, in spite of being proximate, Baruipur of Canning could never develop as fireworkers' hub and making fireworks became particularly popular within the village of Champahati.

The incidents of accidents at various times along with the police raids have made the villagers much conscious and they have tried to adapt various safety measures to avoid any fatalistic accidents. However, the effectiveness of those measures can be questioned by the fact of frequent accidents, some of which gets reported by the media while most of them do not. In spite of various adverse circumstances it is found at the same time that the villagers have managed to continue with making fireworks generations after generations. It is

therefore interesting to note how a village's identity has developed centering round a particular form of work-making fireworks.

Chapter four is based on second and fourth objectives whereby the nature of the work life of the fireworkers has been analysed including its risk associations. This chapter is about the nature of work the fireworkers of Haral are engaged in. On analysing the socio-economic background, categorisation of the workers, sources of capital used for business in case of those who function as manufacturing cum selling units, alternate occupations they are involved in, sources of learning the art of fireworks along with the fact if this work is being carried forward through generations despite its associated risks, one can get interesting insights regarding the nature of work of the fireworks industry in the village. There is much heterogeneity amidst homogeneity in the sense that though the village of Haral is identified as "The Fireworkers' Village", but there are underlying categories of differentiation which one encounter upon studying the field. It is found that the workers do not form a homogeneous category; age, caste, marital status, and educational attainment form the major basis of classification. It is found that workers comprise individuals irrespective of their gender and age, men and women apart from the fact that children, adults and aged are equally engaged with this work. Most of the villagers here belong to Scheduled Castes, and neither there is existence of people of other religion other than Hindus, nor are Scheduled Tribes reported to be living in the village. The educational level of the villagers is quite low and it is in accordance to the census data which also shows that the literacy level of the villagers is quite low. This is partly due to the fact that for the villagers, it is more important to learn the making of fireworks rather than having education and thereby get involved in some form of work which will help to sustain the family. However the villagers consider that it is important to have some basic knowledge which will

enable them to understand *hisab*or calculations so that they are not cheated by others.

As far as the work is concerned, there is a form of division of labour as well as categorisation which equally contributes to the heterogeneity of the work. Most of the villagers either work in the fireworks factory, or for the stockists locally called aroddar who supplies them raw materials and takes back the finished product in return for daily payments which ranges between Rs 300 per day during off season to Rs 500 per day during peak season. It is generally the women and children rather than the male counterparts, who work under them because it is a win-win situation for both the parties. The women and children can be employed as cheap sources of labour while for the former working under the stockists do not require them to invest money, rather they are able to supplement for their family income. Of recent, women apart from making fireworks are increasingly getting themselves involved in the family business, and often they are shopkeepers who run the fireworks shop in their house. However it does not mean that they are debarred from the domestic works, because only after completing all their household chores and looking after their family members and children can they work and earn. For the married women it becomes particularly tougher since the double task of looking after the home and business simultaneously often takes a toll on their health. The aged people also can be seen making fireworks in front of the yards of their houses either out of family's economic compulsion or out of love and passion towards the art of making fireworks. However, those who work in the factories, they are categorised under three heads- first those who work as daily wage labourer, secondly those who work on a contract basis and third those who work as full time workers. However most of the villagers prefer to work under the first two categories, i.e., as daily wage labourer or contract labourers, because it facilitates them to work on a flexible basis and they can also work for others- be

it stockists or for family business as well as it also facilitates them to have greater income from various sources.

On the other hand, villagers who own manufacturing cum selling units need capital for their business which can range from Rs 50000 to Rs 500000. However, they might not always have the required capital with them as a result of which they need to borrow from others. But it is found that generally, the villagers prefer to borrow money from the local money lenders or mahajan despite the fact that they have to return the money back with a high interest rate or from their friends and relatives or takes the family's pooled income and savings but hardly resort to the banks because, according to them for obtaining a loan entails much formalities which is time consuming and often they lack the necessary papers required to obtain loan from the bank. Added to this there is also a matter of discrepancy of income whereby it varies according to the seasons for business along with the size of the business. During the peak season the villagers with relatively bigger business in the form of manufacturing cum selling units or home-based business earn as much as Rs 20000 to Rs 25000 per month while the smaller units earn between Rs 10000 to Rs 15000, but it is only for three to four months of the year; for rest of the year, their income varies between Rs 7000 to Rs 10000 for the former and for the latter it is to a maximum of Rs 7000. The seasonal nature of the business is no more enough for most of the villagers to sustain their family as a result of which they have to search for alternate means of occupation; sometimes as masons in their own or neighbouring villages or cities under contractors, or as vendors and hawkers in the market of Champahati, railway platform or local trains or as agricultural labourers in nearby villages. But however the workers choose these alternative occupations only as secondary means during times when they are unable to sustain their family.

As far as learning of making fireworks are concerned, there are various sources, namely, family, peers or formal training in factories. Since the villagers in most of the cases have grown up seeing their parents associated with the same work, they naturally have a kind of affinity towards making fireworks. Children while at home often seeing their parents become intrigued and while imitating their parents, unknowingly learns the skill of making fireworks and as they grow up, they become increasingly associated with the work. Children, sometimes, 'are also influenced by their class mates who offer them to work under the secret suppliers'. Thus without the parent's knowledge they are found to bunk the school classes and instead work for absolute meagre pay. Thus it can be concluded that though children are reported to be not working in the factories of Champahati, but child labour continues in disguised form in the village which has a detrimental effect on their health and education. Villagers also come to learn the skill of making fireworks as a result of formal training while working in factories. As Miriam Glucksmann has said in Total Social Organisation of Labour, the work of the fireworkers under different socio-economic condition show that there is a connection between labour and its organisation which varies according to different socio- economic conditions.

Ulrich Beck was of the view that we are living in a society which can be characterised as risk society, whereby the state of emergency threatens to become the normal society. It cannot be denied that making fireworks is indeed a work that involves considerable risks; however at the same time it is interesting to note that why despite the fact of associated risks, the villagers continue with their present form of work. The villagers are well aware of the fact and they even know that the work can prove to be dangerous and even fatalistic. However some of them do not even consider these hazards as risks, and opine that every form of work and occupation has its own risks and such risks turn out to be dangerous because of the ignorance or casual attitude of the

individuals. Here much similarity can be found with Beck's argument whereby the villagers no more consider the risks to be threatening and in fact the risky environment of their work becomes normal state for them. Moreover, Beck's contention that risks are man-made and is chameleonic in nature is well justified when the villagers opine that if proper safety measures are undertaken, risks of fatalistic accidents can be minimised to a considerable amount. The villagers report about various safety measures like keeping the fireworks at distance from the stoves, *chulhas*, or gas cylinders while working at home, regular monitoring of the electrical wiring of the home and shops to avoid short circuits, proper surveillance of the children at the home while they work with their parents, keeping the chemicals used to make fireworks dry and free from damp and by avoiding making of fireworks during monsoon are adapted to minimise the risks of fatalistic accidents.

The choice of the fireworkers' with their present form of occupation can be justified by Rational Choice Theory. In spite of knowing about the risks associated with their work, the villagers have their own reasons for remaining engaged in making fireworks. The hot and dry climate of Haral which, on the one hand, is ideal for making fireworks has its own disadvantages because it limits the option of the villagers in terms of engagement to any other activities including agricultural activities. Apart from the love and passion for the work they have been associated with their childhood, the very fact that this work provided opportunities for more income as compared to government's scheme of 100 days work while being able to remain rooted to their family and village is what keep this villagers associated with this work.

Whatever be the reason, the villagers have well justified grounds for remaining associated with the work despite risk association with their work. Rational Choice Theorists argue that if the individuals choose a line of action, and he/she has reasons for choosing it and acting in a certain way, then it is rational for

him/her to undertake a particular line of action. The fireworkers of Haral, too are rational in this sense because they have valid reasons for remaining associated with making fireworks- it has nothing to do with being true or false, they have valid justifications for their choice of action. Hence the generation based transfer of knowledge regarding making fireworks can be justified and it becomes clear that once the villagers learn the art of making fireworks, they master it and transfer the knowledge to the other family members through generations as it has continued for more than half a century and thus being able to maintain its identity as a fireworkers' village for various reasons.

Chapter Five is based on the fifth objective of analysing the past and present trends of work and its impact on their lives, given to the fact of various forces of changes. It is found that the challenges which are forwarded by the changing conditions and demands have an inevitable impact on the work patterns of the fireworkers. However the workers are adjusting and thereby negotiating with the changed conditions of the work and challenges therein. Different factors like customers' demand for newer and 'fancy' forms of fireworks, ban on those fireworks which emits noise of more than 65 decibels but at the same time demands for such shobdobaji by the customers, increasing competition put forward by the Baji Mela in different parts of Kolkata accompanied by increasing infiltration of Haral's business market by Chinese crackers and fireworks from Sivakasi, imposition of GST on raw materials leading to a simultaneous increase in price of the finished products are some of the major challenges as a result of which the fireworkers need to reconsider the way they have been working for generations. Moreover, the frequent raids and arrests by the police are an added concern for the villagers apart from the fact that they have to give bribe to local police to avoid any police issues. It is seen that the fireworkers often have to pay almost three times the bribe as regards the cost of the fireworks. This is leading to an unnecessary escalation of prices of the

fireworks. Police raids are also a concern for the villagers due to the fact that the poor villagers who work under the stockists get arrested while the stockists or *aroddar* generally elopes from such raids and arrests because they have money power along with 'local connections'.

However the fireworkers are coming up with a number of ways to adapt themselves to the changed scenario. What is the need of the hour is to manufacture fireworks at a cheaper rate within lesser time so that the popularity of the fireworkers continues among the customers. The villagers are coming up with various ways like experimentations with the chemicals used to make fancy fireworks, illegal way of making and selling of shobdobaji to the customers at secret places, bribing the police officials to avoid any issues. Another kind of change that the fireworkers are adopting is to fragmentise the work process. Since the making of fireworks involves only human labour and no mechanization, so the only way to increase the yield per worker is fragmentation of the entire task. Rober Blauner was of the view that production technology influences the degree of alienation that the worker experience. Objective conditions and subjective feelings and states are what that has contributed to the factor of being either satisfied or alienated. According to him, if a worker is satisfied, he is not alienated. But in the firework industry of Haral, such kind of fragmentation is leading to feeling of alienation among the workers who do not get any satisfaction from being attached to only a specific part of the production process. As Marx stated, alienation denotes to a situation whereby man is not able to derive satisfaction from the product of his labour which becomes commodified. The workers who deal with the raw materials do not know how that finished product would look like. On the other hand, the worker, who is involved with packaging, does not know about the composition that goes into the making of fireworks. The worker thus ultimately gets alienated from the product of his labour and this is leading to the development of frustration among the workers. Moreover, the growing concern among the fireworkers for profit is also distancing them from their family, relatives, their work and above all, their own selves, leading to ever more growing sense of alienation and frustration.

The discontentment of the villagers is aggravated by the apathetic and negligent attitude of the government, non- governmental organisations, and local authorities including the Panchayat. The government has not taken enough care regarding infrastructural development of the village and the narrow roads of Haralfull of potholes which gets worsened every year due to rainfall have not been properly taken care of for more than a decade. Also the villagers say that if the government would have arranged for special training courses, better safety measures could have been adopted by them. The government has neither supervised towards the development of other infrastructural facilities like education and healthcare facilities and the villagers have to commute several kilometres for availing such services. The villagers feel that government has been negligent in ensuring the workforce's right to safety by making it more pronounced, however the negligence has made them even more vulnerable to exploitation, uncertainties and risks. Nor any non-governmental organisation or local clubs looks after their grievances and work for their development. Even the Panchayat is apathetic to the development and grievances of the village and it is clear from their level of detachment from the villagers. Such negligence is only adding to the existing burden of challenges that the fireworkers encounter in their work.

Chapter Six is based on the third and fifth and sixth objective whereby it is seen that the work patterns have an impact on the life of the worker and his family. However, it is equally true that the family also have an influence on the work patterns of the fireworkers. Apart from peer influence, the fact that the workers have been learning the art of making fireworkers within the family by seeing

their parents and this has contributed towards the development of affinity towards the work. Haral is characterised by the absence of economic viability, and in many cases this economic insufficiency has driven the workers towards the work at a tender age. Family, in fact, plays a part in motivating the workers to undertake this particular form of work and continue with it despite the associated risks.

On the other hand, the work patterns equally have an impact on the life of the worker and his/ her family. Most of the villagers have their families associated with making of fireworks. In some cases, as it has been seen earlier, villagers work for factories, for *aroddar* or as a part of home-based work. It is found that though the members of the family have been working together, there is a division of labour on the basis of age and sex. Lionel Tiger and Robin Fox's contention regarding biological differences with respect to different gender roles is well reflected in the fact that the women fireworkers of the village are generally associated with those aspects of the work process, where there is comparatively less labour and which involves lesser risks and danger like making of *fuljhuri*, *charki*, or packaging the finished product. On the other hand, since men are considered to be powerful and aggressive, they are associated with more risky and laborious works like making of tubri, pataka, generator baji etc. Such works always imposes the risk of fatalistic accidents. Such inclinations of men towards achievement and competition have been talked about by Talcott Parsons.

Oakley, on the other was of the view that gender roles differ according to different cultures and it has nothing to do with biology. Of recent, women in the village of Haral are also seen working as shopkeepers, and this implies growing importance of the female members within the family, since more and more women are being increasingly drawn into the economic decision making process which was earlier the exclusive prerogative of the male members of the

family. However, the women can only afford to do this after looking for their family members and other household chores. This puts much pressure on the health of the women fellow workers. This shows that though there have been changes in function according to gender roles, but the gender roles have not changed as such within the village. At the same time it also validates Ernestine Friedl's view that in societies where men perform the same tasks as women consists of higher prestige because though a man or a woman of Haral might be doing the same tasks while making fireworks, but it is perceived that the women can work only after the household chores, looking after family and children, while the male counterparts needs no such obligation.

The children on the other hand are influenced mainly by their families or peers. The child either grows up by seeing their parents being associated with the same work which motivates them to undertake the work in the form of imitation. Once they learn the art, they work in a full-fledged manner and even assist their parents during the peak season of the business. Moreover, the children also get motivated by the peers who work as labourers for the secret suppliers and this is having a serious adverse effect on their education and health. Bunking the school classes along with their mates, they work for such suppliers in return for a meagre wage which varies between Rs 150 per day during off-season to Rs 300 per day during peak season. However such pay is lucrative for the children who continue with the risky work without informing their parents. But such association is having a serious consequence for the children because they are falling prey to various illegal rackets of alcoholics and drug peddlers who supplies them addictive materials for money and are operates at various secret spots of the village. This very fact creates tension among the relationship of children and parents, once they come to know about it. However, within the family they work under supervision and parental control and it helps in the development of a positive relation between the children and the parents. The

aged generations are highly respected by the other family members because their knowledge and expertise is passed on to the subsequent generations. This kind of mutual understanding among the members of the family is what that helps in the continuance of the joint family; however, nuclear family is not totally absent in the village.

The recent challenges imposed by the changing condition of the work have its major impact on the workers and their family. The increasing competitive market is triggering the workers to keep the price of the fireworks at a minimum while increasing their production. However such increase in production is easy in industries with mechanization. But firework industry is one such instance where the entire task involves only the use of human labour. So it is important for the workers increase their productivity manually. However, the villagers have found a way out by fragmentising the various works involved in the process following the principle of Ford's assembly line or Taylor's Scientific Management. However, such adoption of principle is leading to development of frustration and alienation of the workers from the product of their labour, because due to the fragmentation of the tasks, the workers are associated with only a particular part of the process, which no longer gives them the satisfaction of making a product all by himself/ herself. However, such adoption of Taylor's principle of assembly line in terms of their work is debarring the villagers from the satisfaction related to their work and leading to more and more alienation.

Moreover, the need to increase the yield and income has also led to the intersection of work and leisure hours among the workers. Stanley Parker's 'extension pattern' is increasingly becoming the form for the fireworkers because the dividing line between work and leisure is getting eroded. They need to work not only during the working hours but also whenever they get time for making fireworks. This leaves them with no scheduled hours of working and it is equally true for most of the villagers. This is increasingly becoming a source

of alienation for the workers from their family members and relations because their urge for profit motive is shrinking their hours of leisure and relaxation, distancing them from family, friends and relatives. Thus a kind of intersection between the work and leisure hours, driven by urge of more production and more income is ultimately alienating them not only from the products of their labour but also their family and relations, producing a sense of discontentment not only among the workers, but their family as well.

The discontentment of the workers is reflected by the fact of whether they are willing to continue with their present form of work and if they are eager for their future generations to be associated with making of fireworks. Though most of the time, the workers are eager to continue with their present form of work, but they lament that if they are continuously bombarded with problems and challenges, then they might have to give a second thought regarding whether they should continue with their present form of work. This truth is equally reflected in the fact that most of them are unsure as regarding whether they would remain associated with making fireworks, if they are provided with alternative occupations in the village. However, their discontentment is highly reflected through the fact that most of them do not want their children or future generations to remain associated with this particular form of work. The workers are increasingly becoming suspicious regarding the sustenance ability of the present form of work and it is reflected by the fact and there is much room for question and doubt about the willingness and unwillingness of the workers with their present form of work despite various risks, uncertainties, problems and challenges.

It is interesting to note how a village came into existence centering round an industry and particular form of work. But here industry is not used in the literal sense of the term- production limited to factories itself; rather apart from working in factories, the workers work independently as part of home based

work for the 'aroddar' or for their family business with manufacturing cum selling unit. It is also interesting to note that the entire production is carried on the basis of human labour and not any form of mechanization. Even though the use of the term 'fireworkers' might apparently give a view of the village to be homogenous, but there is much differentiation in work on the basis of gender and age apart from other dimensions. The work patterns are exerting influence not only upon the worker but their family as well. Various motivating factors pull the workers towards making fireworks and they continue with the work throughout their life. Being engaged in other form of occupations apart from making fireworks is only a secondary option for the villagers and they engage in such works to supplement their family income and for most of the time during off season. The villagers have justifiable reasons for remaining associated with their present form of work, despite associated risks and this is the reason why this work has been continued for generations in the village. However, the challenges put forward by the various forces of changes are increasingly putting pressure on the villagers to increase their production while keeping the price of the fireworks low in order to survive the competitive market. This consequently is forcing the workers to reorganise their way of work, which is turn is increasing the level of dissatisfaction, alienation and frustration. The discontentment is furthered by the apathetic and negligent attitude of the governmental authorities, non-governmental organisations, local clubs and even the Panchayat and is well reflected in the attitude of the fireworkers regarding their willingness of association with the present form of work. Though most of them are continuing with making fireworks, but many of them at the same time, are unwilling to keep their children associated with work that has been continuing for a minimum of three generations all over the village. However, while concluding it leaves me with question regarding the future of the identity of the village which has been continuing for more than half a century on the basis of its work, that is, "the fireworkers' village".

7.2 LIMITATIONS OF THE STUDY

The study has been conducted keeping in view the sensitiveness of the research area and I have tried to present the study in a way as comprehensive as possible. However there are certain areas which have been left unattended and can be studied in future. Those probable areas have been mentioned in the last section of the chapter. These areas have been missed out unintentionally due to the following reasons which form part of the limitation(s) of my study.

Firstly, the sample size is small compared to the population and hence implementing only statistical measures for generalisation would not have been enough. However, in spite of choosing purposive sampling which is a non-probability sampling method and leaves enough room for questioning the validity and reliability of the findings, enough caution has been taken to maintain the representativeness of the sample in terms of the population by implementing triangulation and following a mixed method.

Secondly, literature review in the form of citing prior research helps in understanding the research problem under investigation. But there is dearth of literature and on this particular study area which otherwise could have helped in probing the research question more deeply. Hence I had to rely on the researches and studies on fireworkers in Sivakasi for an initial understanding regarding the study area.

Thirdly, the respondents were initially unwilling to disclose any information. Also the area is difficult for outsiders to penetrate. There was also much time consumption while trying to understand the vibe of the locality. Also various concerned authorities of the village including the Champahati Gram Panchayat and the ChampahatiHaral Fireworks Business Association were addressed to get

CONCLUSION

access of the respondents and their spontaneous responses, which again took a long time.

Fourthly, related to the third limitation, lack of time limited the scope of interviewing the respondents with a deeper probing. However, observation has been used as a supplementary tool to fill in the gaps in terms of understanding.

Lastly, I believe that the research has many facets to study, but lack of time led me to choose only a particular aspect for the study.

7.3 DIRECTIONS FOR FUTURE RESEARCH

As has been mentioned in the previous section, there are certain limitations of the study as a result of which there are certain facets of the study which could not be studied. However I believe that the study is promising in the sense that no prior research has been done on the area and therefore presents an array of areas to be studied for the scholars and researchers in the future. The present study is directed towards the fireworkers in general; and as we see that these workers are heterogeneous groups comprising of different age-groups and gender. However, in depth studies can be made in terms of these specific groups, and especially research on women and child workers provide interesting areas of exploration.

Also future research can be done in terms of the workers who are employed in the factories, the nature and dynamics of work and relationships between the factory owner and worker.

Also researches can be conducted on the risk association of the job and its impact on different categories of workers. Also on being provided with time, the same study can be conducted across different time dimensions with greater emphasis on the socio-economic status of the workers. Also comparative study can be conducted regarding work and its impact between the fireworkers of Champahati and Nungi, both of which are located in South 24 Parganas, West Bengal. Whatever, be the research problem, but this study area needs greater attention from the scholars and researchers because the problem of the villagers and the development of the village in particular and the fireworkers of the state, at large have been neglected for a long time which calls for immediate attention of the government authorities and policy makers.

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Map

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Image

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SAMPLE INTERVIEW SCHEDULE

(FOR THE FIREWORKER RESPONDENT)

TOPIC: THE FIREWORKERS' VILLAGE OF CHAMPAHATI- AN ANALYSIS OF THEIR WORK AND ITS IMPACT ON THEIR LIVES

NAME OF THE RESEARCHER: MS. PIYALI DUTTA BANIK NAME OF RESEARCH GUIDE: PROFESSOR DALIA CHAKRABARTI

(ANONYMITY OF THE RESPONDENTS SHALL BE MAINTAINED WITH UTMOST CARE)

Date:

Place of data collection:

Respondent No.:

GENERAL INFORMATION

- 1. Name (Optional):
- 2. Age:
 - a. Below 18 years
 - b. 18-59 years
 - c. 60 and above
- 3. Gender:
 - a. Male
 - b. Female
- 4. Caste:
 - a. General
 - b. Scheduled Caste
- 5. Religion:
- 6. Family:
 - a. Joint
 - b. Nuclear
- 7. Citizenship:
 - a. Indian
 - b. Non-Indian
- 8. Educational Qualification:
 - a. Primary

- b. Secondary
- c. Senior Secondary and above
- 9. **Monthly income**:
 - a. Below 5000
 - b. Rs 5001 to 10,000
 - c. Rs 10,001 to 15,000
 - d. Rs 15,001 to 20,000
 - e. Rs 20,001 and above

GROUP-A

- 1. What type of house do you live in?
- a. Own house
- b. Rented house
- 2. For how long have you been living over here?
- 3. Your Place of Origin:
 - a. West Bengal, India
 - b. Other State, India
 - c. Bangladesh
- 4. For how many years is the village of Champahati associated with making firework?
- 5. How did Champahati come to know as "fireworkers' village"?

GROUP-B

- 6. What is your work?
- 7. What exactly you do in terms of this work?
- 8. Since which age are you into making firecrackers?
- 9. From where did you learn the art of making firework?
- 10. Were your previous generations involved into making fireworks?
- a. Yes

- b. No (If response is 'NO', then go to question 10i)
 - i. What kind of work were they involved in?
- 11. What amount of money goes for the expenditure in order to make fireworks?
- 12. How is the money arranged?

GROUP-C

- 13. Is/are your family member(s) involved into making fireworks?
 - a. Yes (If response is 'YES', then go to question 13i,ii,iii)
 - i. Is it your family business?
 - ii. Who are involved?
 - iii. What kind of work are they involved in?
 - b. No (If response is 'NO', then go to question 13i, ii)
 - i. What kind of occupation are they involved in?
 - ii. Why did they not opt for the same work?
- 14.Is your work seasonal?
 - a. Yes (If response is 'YES', then go to 13i,ii)
 - b. No
 - i. Alternative works/occupation the respondent involved in?
 - ii. What kind of uncertainties do the respondent/ family have to face?

GROUP-D

- 15. What interested/motivated you towards this work?
- 16.Do you still find your work to be interesting?
- 17.Do you agree that there are certain forms of uncertainties/ high risk associated with your hazardous work which makes your work different from others?
- a. Yes
- b. No

- 18.Despite knowing about the possible risks/ hazards what makes you remain associated with this work?
- 19.Do you take any safety measures to prevent hazards/accidents while making firecrackers?
- 20. What are the types of safety measures taken?

GROUP-E

- 21. Is there any change being observed in the pattern of work done?
 - a. Yes (if response is 'Yes' then go to 21i)
 - b. No
 - i. What kind of change is observed?
 - ii. Are these changes affecting your family?
- 22. Who are the buyers of your fireworks?
- 23. Can you please tell in detail about the average sale of fireworks?
- 24. Where generally are your fireworks sold?
- 25.Of recent, there has been a ban of making and selling of *shobdobaji*, newspapers report the manufacturing of such firecrackers. What are your views on it?
- 26. 'Baji mela' organised in Kolkata before Kali Puja are gaining popularity day by day. Do you think it might affect the business of Haral?

GROUP- F

27. Is the government taking any initiative for your development?

- 28.Are local NGOs/clubs working towards the development of your working condition?
- 29.Do you wish to continue with making fireworks for the future?
- 30. Given a chance would you like to shift to other work/occupation?
- 31. How do you wish to plan the 'future' of your future generations?

SAMPLE INTERVIEW SCHEDULE (FOR SEMI-STRUCTURED INTERVIEW)

TOPIC: THE FIREWORKERS' VILLAGE OF CHAMPAHATI- AN ANALYSIS OF THEIR WORK AND ITS IMPACT ON THEIR LIVES

NAME	OF	THE RI	ESEA	RCHER	:
NAME	OF	RESEA	RCH	GUIDE	

Date: Place of data collection: Respondent No.: Respondent Name:

- 1. Tell me something about the village of Haral in Champahati.
- 2. How this village did become popular with the making of fireworks?
- 3. What is the present condition of the village?
- 4. Tell me something about the villagers.
- 5. Can you tell something about the firework industry of Champahati?
- 6. What is the contribution of the village of Haral towards business?
- 7. How the villagers are associated with firework industry?
- 8. Is there any particular pattern of work of the villagers in the firework industry?
- 9. Can you mention about the changes being seen in terms of work and industry?
- 10. Why making fireworks is popular in this village?
- 11. Why people are involved in this particular type of work?
- 12. What are the infrastructural facilities that are available to the fireworkers and the villagers?