CHAPTER 1

INTRODUCTION

Works on sociology and anthropology of industrialisation are largely based upon unique experiences of the Western societies. Recently, some works have been done in the Indian situation but the sociological and anthropological study of power plants or other industries in India has not yet attracted any major attention of the scholars.

Baviskar (1969) demonstrated that caste and other social configurations of people in a factory had practically no significant effect on work efficiency. His observation was based on a co-operative sugar factory in Maharashtra.

Bhowmik (1981) investigated the aspects of class formation among tribal workers engaged in the tea plantations of North Bengal. Employment in the plantations has changed their cycle of economic activities from that of self-supporting cultivators to wage labourers. The specific focus of his study has been on change in social relations, which resulted from a change in the organisation of production.

Dasgupta (1980) has shown the impact of industrialisation on a tribe of Bihar who were economically backward. He demonstrated how they utilised the agricultural land in industry, how their

social structure was affected by the factory life, and how their traditional rituals and beliefs were affected by the industry. He also studied the impact of industrial complex on the emerging tribal solidarity movement and how the tribal workers responded to the Trade Union movements.

Holmstrom (1978) examined workers' attituce to work and their concept of career in industry as well as life in an urban community in relation to the force of traditional institutions. He argued that a tradition of choice (among different sets of norms and values) and equality (among social segments) which was marginal in traditional India was becoming central in the behaviour of the urban industrial population.

Lambert (1964) examined the problem of commitment to work in depth and concluded that the degree of maladjustment of the Indian workers with their jobs is relatively smaller. He pointed out that some industrial organizations make their work force overcommitted by providing them with very attractive social and economic benefits. In his view employees may be overcommitted to an organisation if it enables them to fulfil all their social obligations well enough alongside their obligations to the employer.

Morris (1960) stressed that the major proportion of labourers required for modern industry in India is of unskilled sort and their nature of work in the factory is indistinguishable

from that done in rural areas.

Niehoff (1959) commented upon the social and economic life of a group of workers in a factory of Kanpur. He attempted to substantiate the view that industrialisation in India leads to social change in the direction of the social institutions obtaining in the Western society.

Orans (1965) studied the impact of industrialisation on a tribe (Santal) in Jamshedpur - an industrial belt of eastern India. He observed that the Santal had to readjust the culture of 'pleasure' orientation in the industrial areas and the amount of social change among them varied partly in terms of distance between residence and the industrial centre.

Rice (1958) observed the causes the caste-sub-caste conflict and their relations with the production system in industry. In addition, he also compared the conflict of different ethnic groups among the workers of the European industry with the caste-sub-caste conflict of the Indian industry. He observed that the effects on productivity due to rivalries or jealousies were not there in the Indian industries but were present in the European industries.

Ramaswamy (1977) studied the employees' involvement in the trade union activities in the context of their economic and

political affiliations, work situation, the net work of social relationships woven into trade union organization. The behaviour of the employees and their attitudes to work are also examined by him.

Sheth (1982) examined the widespread notion about the traditional institutions of India are an obstacle to its industrialization. He built a comprehensive picture of the life and structure of an Indian factory and observed the various forms of relationships among the personnel and the values and norms governing them. He began with an account of the emergence and growth of the factory ('oriental' in Gujrat), a normal day's routine in it, and the formal organization of the employees into group and categories. Their social background and their obligations to local communities, castes and kin groups were then examined to explore how far these influenced their work. The employees' involvement in trade unionism was discussed in the context of their relations within and outside the factory. He also discussed the interaction pattern between modern industry and the traditional institutions of developing societies in the Third World.

The given review of relevant literatures reveals that most of the Indian scholars have studied the employer-employee relationship, economic inequalities among the workers, caste-class relations, trade union movements, bureaucratic organizations, status hierarchy, etc. These studies were mostly conducted either

in jute, textile, or engineering industries. Naturally very little work has been done in the context of electricity and various aspects of the State Electricity Boards of different states of India. The following references have merely touched upon the issues.

Bhanage (1976) studied the aspects of regulation and economics of the electricity supply industry in Maharashtra, with particular emphasis on public utility.

Rao (1984) emphasized to find out the causes for the low production of the State Electricity Boards. He specifically examined the situation as found in the Electricity Boards of Andhra Pradesh, Madhya Pradesh, Tamil Nadu, Uttar Pradesh and West Bengal.

Kashkari (1975) discussed the resources, demand and nature of conservation of energy. He observed that intreation and continuous expansion of electric utility industry resulted in an enormous increase in the unit costs in recent times in India'.

Kothari and Dadi (1977) specifically examined the economic benefits by the rural electrification in Gujrat.

Naidu (1980) observed that the electric utility industry is a 'decreasing cost industry' i.e. the greater the use of the equipment the lower the unit cost. He critically examined the

finances of Andhra Pradesh State Electricity Board.

Salahuddin (1987) suggested the following points to improve the quality of output of power:

(i) Objective of the (working team should be well defined,

(ii) The Commissioning personnel should be different from the construction personnel,

(iii) Operation crew should be fully involved in commissioning activities,

(iv) Priority should be given to train the operating staff.

From the given reference it becomes conspicuous that sociological researches in the field of power plants (which is somewhat different from the other industries) are significantly lacking. Such studies are urgently needed for understanding the organizational pattern and the system of norms within it. The present account will not be in a position to fill up the gaps but will endeavour, though close examination of the situation, to provide insight into the nature of the problem and possible remedial measures.

Electricity being the most convenient and versatile form of all energies, the demand for the same has been growing at a much faster rate than other forms of energy. Since electricity plays a crucial role both in industrial and agricultural sectors, the quantum of consumption of electricity in a country represents

an indicator of productivity and growth. In realisation of this fact, power generation has been given high priority in the plan programmes of contemporary India.

Power from electricity holds the key for contemporary technological and economic development. Our daily life, science and technology, etc. are depend upon the same as a large measure of electricity is required to meet such demands.

"Power generation programmes, made phenomenal progress with the advent of Five Year Plans. The power sector is highly capital intensive and investment in this sector constitutes a substantial share of the total plan outlay in the country" (India, 1988-89 : 431).

"Throughout the sixties, India had a shortage of electric power. This shortage turned into a power famine during 1972-73 and affected all areas of activity in India" (Naidu, 1980 : 39).

The power engineers' conference held early in 1978 in New Delhi estimated that "shortfall in power generation has lost the country of Rs. 300 crores in terms of industrial production and three million jobs" (Economic Times, Feb. 7, 1978:5). This brings

out clearly the fact that the country's economy has been suffering considerably because of power shortages (Naidu, 1980 : 39).

At the end of the First Five Year Plan, the generation capacity of electricity stood at 34.2 lakh KW. At the end of Second Plan it reached to 57 lakh KW. At the end of Fifth Plan, the installed capacity rose to 313.07 lakh KW comprising 113.86 lakh KW from hydroelectric projects, 192.81 Lakh KW from thermal projects and 6.4 lakh KW from nuclear projects. The achievement during Sixth Plan has been 142.26 lakh KW (28.73 lakh KW hydro-electric, 108.98 lakh KW thermal and 4.55 lakh kw nuclear) i.e. 72.3 per cent of the target. The total generating capacity during the Seventh Plan is 22,245 million kw (MW) in utilities. This comprises 15,999 mw thermal, 5,541 mw hydro-electric and 705 mw nuclear power.

Despite seven shortfall, the installed capacity of electricity in India is steadily increasing. Nevertheless, the demand of power has grown faster than its rate of generation resulting in the shortage. In view of this nagging problem, the National Thermal Power Corporation (NTPC) has taken up the responsibility of removing this shortage from its very beginning. Its declared objective has been to irradicate power shortages within the shortest possible time (NTPC News : 1985).

The National Thermal Power Corporation as a Public Sector undertaking was incorporated in November, 1975 with the main

objective of planning, promoting, and organising the integrated development of thermal power in the country. The Corporation has been entrusted with the task of execution and operation of large pit-head thermal power stations and associated transmission networks. The authorised share capital of the Corporation is Rs. 6,000 crores. (India 1988-89 : 435).

The NTPC has commissioned 12 units of 200 MW and during the sixth plan period, it accounted for 20.2 per cent of the total thermal capacity in the coutry. During the Seventh Plan, its contribution rose to about 50 per cent of the total thermal capacity. Further, NTPC has constructed of 10,000 kms of 400 KV transmission lines and HVDC transmission lines for the bulk transfer of power (NTPC News : 1987).

The objectives of NTPC, as envisaged, are to construct and operate coal-based Super Thermal Power Stations near coal pit-heads, along with associated Extra High Voltage transmission systems for bulk transfer of power to State Electricity Boards. It is presently betting up nine super thermal power stations. Among them the following seven have the total installed capacity of 16,360 MW at Singrauli, UP (2000 MW); Korba, M.P. (2100 MW); Ramagundam, A.P. (2100 MW); Farakka, W.B. (2100 MW); Vindhyachal, MP (2260 MW); Rihand, U.P. (3000 MW), Kahalgaon, Bihar (2800 MW). Installed capacity of the remaining two viz. Talcher (Orissa) (-) and National Capital Thermal Power Project, U.P. (-) is not instantly known. It is also betting up three combined cycle gas-

based power stations at Anta (Rajasthan), Auraiya (UP) and Kawas (Gujrat). The Corporation is also extending transmission lines with a total length of about 17,600 circuit km. The total estimated cost of the projects is Rs. 13,157.5 crore.

Five units of 200 MW each and two units of 500 MW each at Korba, three units of 200 MW each and one unit of 500 MW at Ramagundam, three units of 200 MW each at Farakka, two units of 210 MW each, at Vindhyachal and one unit of 500 MW at Rihand have already been commissioned. NTPC has also been managing Badarpur Thermal power station at Delhi on an agency basis (India 1988-89: 435-37; NTPC News, 1987).

NTPC has been earning profits right from the beginning of its operation. While in 1984-85 it earned a net profit of Rs. 87.54 crores; in 1985-86, the profit rose to Rs. 183 crores. The cumulative capital investment in projects has risen from Rs. 1.1 crore to Rs. 5,249 crore by October 31, 1986 (NTPC News, 1987).

NTPC has the distinction of being the single largest recipient of credit/loan from the World Bank, the total assistance from which source alone amounts to $ 3,062.1 million (approximately Rs. 3,700 crore). Recently, NTPC has also earned the distinction of receiving the largest loan for the single project from the World Bank (combined Cycle Gas Turbine Project) of $ 485 million (NTPC News, 1987).

Power sector accounted for an investment of Rs. 10,431 crore which was 14.63 per cent of the total investment in public enterprises under the Central Government at the end of March, 1988.

The top nine public enterprises in the public sector according to the amount of investment therein are : National Thermal Power Corporation Ltd. (Rs. 7,713.30 crore); Steel Authority of India Ltd. (Rs. 6,545.20 crores); Rashtriya Ispact Nigam Ltd. (Rs. 4,022.28 crores); Oil and Natural Gas Commission (Rs. 3,546.55 crores); Rural Electrification Corporation Ltd. (Rs. 2,562.10 crores); National Aluminium Company Ltd. (Rs. 2,516.44 crores); Food Corporation of India Ltd. (Rs. 2,033.67 crores); Mahanagar Telephone Nigam Ltd. (Rs. 1,613.85 crores) and National Textile Corporation Ltd. (Rs. 1,435.44 crores) [Year Book, 1990 : 791].

Among the profit making enterprises of the Government of India, Oil and Natural Gas Commission tops the list accounting for over 39 percent of the total profits. Indian Oil Corporation, National Thermal Power Corporation, Bharat Heavy Electricals, Mahanagar Telephone Nigam, Oil India and Bharat Petroleum are the others in the list of profit making enterprises (Year Book, 1990 : 792).

Along with the generation of power and accruing profit, the NTPC has been contributing to a major extent toward solving the problem of unemployment. There is a large number of people

engaged by the NTPC and its associated power stations as regular employees. The Seventh Five Year Plan made provisions for providing employment to about 46,000 persons at various levels during the five years period (NTPC News, 1985).

Farakka Super Thermal Power Project:

The National Thermal Power Corporation (NTPC) initiated the task of setting up its fourth Super Thermal Power Plant at Farakka, situated in Murshidabad district of West Bengal in 1981. On completion, the power station would be the largest Super Thermal Power Station of the NTPC. In fact, the initial work of the project has began as early as in February, 1979 and the Letter of Intent of the main plant equipment for three 200 MW units was placed with Bharat Heavy Electricals Limited (BHEL) on May 15, 1981.

The Farakka Super Thermal Power Project (FSTPP) is located at about 300 kms. North of Calcutta. It is situated on the West Bank of feeder canal of the Farakka Barrage. This project has an ultimate capacity of 2,100 MW.

The total land requirement for this power station was 4,500 acres which included land for Merry-Go-Round (MGR) ash pond, main plant, and township. Out of this, 2,500 acres are in West Bengal. The entire land of which was acquired by February 1986. The remaining land is to be acquired from Bihar. The total land required for the MGR is 1,367 acres (78 acres in West Bengal and 1,289 acres in Bihar). Till March, 1986, compensation had been paid for 1,078.09 acres in Bihar.

For establishing this power station, 8000 persons had to loose their shelter and turn destitute. The land oustees of this area, of course, received compensation. But that could not save them from turning to destitution. It was promised that the persons who had suffered for establishing this power station would get priority in employment. Out of such 8000 persons, only 294 so far got jobs (Anandabazar Patrika, 27th April, 1988).

There is 1630 (upto May, 1989) employees in the Farakka Super Thermal Power Project including executives, supervisors, trainee and clerks/workers. The General Manager is the top in the hierarchy. There are a number of divisional/departmental managers below him. Next are the supervisors, the clerks and the workers in order (skilled, semi-skilled and unskilled).

Generation of Power:

In Farakka Super Thermal Power Project, there were three stages of commissioning. The commissioning of Stage I is completed. There are three units of this stage. The capacity of this stage is 3 x 200 MW. The commissioning of Unit I stage II having 500 MW capacity is also completed. The second unit of Stage II is also likely to be completed by December, 1992.

As already mentioned, there are 1600 employees in the FSTPP. After completion the total work of the project, more men should be absorbed as regular employees. Out of these employees,

the bulk is from outside Farakka and for accommodating these non local employees, a township has grown resulting in the emergence of a heterogeneous cultural atmosphere. This has a tremendous impact on the life and culture of the local people.

Organization of a power plant is an important area for sociological investigation. Through the present study it is proposed to analyse various forms of relationships as found among the workers of the power plant and to examine to what extent those motive to its production potential.

Aims and Objectives of Present Study:

Specific aims and objectives of the present study are to know the following issues:

(1) what is the nature of structure and organization of Farakka Super Thermal Power Project?

(2) what is the pattern of status hierarchy in the bureaucratic structure of this power station?

(3) what type of relationship exists among the management and employees of this power station?

(4) what is the interactional pattern among the white coller employees with those of the skilled and unskilled labourers of the poer station both in place of work and elsewhere?

(5) what are the characteristics of working relations (industrial relations) among the employees of FSTPP?

(6) what are the differential rates of remuneration/salary among the employees of FSTPP?

(7) what is the background of the employees of FSTPP and how they have adjusted themselves to the formal industrial norms?

(8) what is the nature of commitment of the employees of FSTPP and what are the problems they face for successful commitments in their respective duties?

(9) what are the rates of absenteeism labour turn over and indiscipline in work activities among the workers of FSTPP?

(10) what are the characters of Trade Unions of FSTPP? What roles do they play for the development of the power station as well as for the betterment of the workers?

(11) what is the level of class consciousness among the workers?

(12) what are the roles of informal organizations in the life and activities of the employees of FSTPP?

(13) what are the roles played by ethnicity, caste and religion of the workers in work activities of FSTPP and also in interpersonal relations among the workers in their day to day life?

(14) what are the patterns of socio-economic life of the different categories of employees of this power station?

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(15) what is the state of education among the employees of this power station, with a special reference of their technical education?

(16) what impact the FSTPP has on the life and activities of the workers and also on the people in general of this locality?

(17) what happens to the environment of the locality due to the existence of FSTPP, with particular reference to environmental pollution?

(18) is there any existence of other small industries which have grown out to meet the necessity of FSTPP?

In order to fulfil the said aims and objectives, we propose to concentrate our enquiries into the following areas:

To examine the structure and organization of NTPC as well as FSTPP, including the system of their production and distribution of power. The relation of NTPC and FSTPP have also been reviewed.

To highlight the interpersonal relations among the management and employees of FSTPP. In this context we have shown the relationship between the management and the employees and relations among the employees of different categories. The class consciousness among the workers and their formal and informal organizations will also be examined in details.

The nature of commitment of employees of FSTPP, their educational and social backgrounds, roles of ethnicity, caste and religion of the workers in their work efficiency, rate of absenteeism and labour turnover, satisfaction and dissatisfaction of workers, etc.

Lastly, we have shown the impact of power plant on the local society, relations between the employees and local people, ecological and economic imbalance and scope for new industries and employment opportunities.

Hypotheses:

In view of the given research strategy, the following hypotheses have been considered important for the present study.

(1) Being exposed to the process of industrialisation, a pre-industrial community tries to adjust itself with the form of industrialisation without concomitant breakdown of their traditional norms.

(2) The development of production system of the industry is entirely dependent on commitment of its employees which in turn entirely rests upon the opportunity in the organizational set up and behaviour pattern of the labour force.

(3) There lies a gap between ideology and practice in the trade union movements in industrial system.

(4) It would be possible to integrate agricultural and industrial development by proper planning.

(5) Industries can be established in the rural sector without drastic change of social, cultural and psychological set up of the region.

Methodology:

Since electricity is the most convenient and versatile form of all energies and since the demand for the same has been continuously growing at a faster rate than other forms of energy, the present author wanted to go through the root of its production and to highlight the social relations involved with this system. In India NTPC is being the most important agency to produce electricity. Thus a concern of it viz. FSTPP was selected by him for his study. West Bengal is facing various problems in industrial sectors since last few years. The deficiency of electricity is one of the important factor for this problem. FSTPP is the only power project of NTPC in West Bengal. Naturally the author was interested to choose FSTPP for his study. Another important factor knocked him that a Super Thermal Power Project must have sophisticated modern technology and there would be a tremendous impact of such type of industry in the socio-cultural life of the people living in and around of this.

The present study has been carried out primarily on the basis of structural-functional approach. Data for this study

have been collected both from primary as well as from secondary sources. Information on organizational pattern of FSTPP has been gathered from published accounts as well as from empirical study. The empirical facts for this study, in particular, have been collected through intensive field investigation in FSTPP. Empirical investigation have been conducted on the basis of conventional anthropological tools and techniques like : interviews, case studies, group discussions, genealogy and observations, etc.

At the initial stage, a pilot survey and a preliminary census were conducted on the employees of various departments of FSTPP.

To collect detail information on economic, social and cultural life of the employees and the local people, the author asked the aged and experienced persons. He also gone through the census report and other published materials and had taken the help of local government officials.

At the stage of study proper, data have been collected through intensive study of 25 percent of the employees of each department. The sample was drawn on the basis of stratified random sampling technique to represent every section of the workers belonging to different ethnic and social backgrounds. Intensive study on the sample households have been conducted through a schedule developed on the basis of pilot survey. For

collecting other information, techniques like interview, case study, group discussion and participant observation have been adopted.

In the context of social change among the employees of FSTPP, the base line for comparison is obviously the pre-industrial phase.

As one of the main thrust of this study is to descrice the various forms of relationships found among the employees of FSTPP and the norms and values governing those relationships, it examines the set of relationships within the organization which functioned both as an unit of production and also as an association of people operating within the formal framework of the system. This set of relationships has been analysed by the concept of bureaucratic organization as proposed by Weber (1964).

The present author visited Farakka Super Thermal Power Plant for the first time in the month of March, 1988. He stayed there for 20 days to get an idea about the entire set up of this power plant viz. situation, employment, trade unions, local people, etc. He met with a number of officers, clerks, workers and others, and collected some data for pursuing the next course of study.

He visited the place for the second time in the month of October, 1988 and stayed there for 40 days. During this visit, he collected a number of other information relevant for his research viz. recruitment matter, labour turnover, economic situation, generation of power, workers' entitlement to facilities, land oustees and compensation, remedy of air pollution, etc. Preliminary census of a section of workers were also conducted at this stage.

The author started his intensive research work in the month of March, 1989 and stayed there for 45 days. During this visit he collected necessary information from 35 percent of employees of each Department. He also visited the different departments at this stage and talked to a number of employees and also visited several local areas.

He visited Farakka for the fourth time in the month of May, 1989 and stayed there for 40 days. During this visit, he collected various secondary data and further discussed with a number of employees. At that time he talked to a number of labourers under the contractors of NTPC and FSTPP, different trade union leaders and few officers and clerks. He talked to some local people and Government officials too at that time.

In the month of December, 1989 the present author visited Farakka for the firth time and stayed there for 20 days. During that visit, he collected detailed information about the contractors

of NTPC and their nature of works and including information regarding the scope of setting up of new industries there. He also observed the family-life of the employees of FSTPP and the informal relations as found among the family members of the workers.

In the month of December, 1990 he visited the field for the sixth time, stayed there only for ten days and collected some secondary data from the FSTPP library.

The author visited Farakka in the month of July, 1991 for the last time and stayed there for other ten days for verification of field data which were collected earlier. Thus the total field work consists of a total of 185 days.

The present author was also visited several libraries of New Delhi, Calcutta and Shillong for obtaining relevant secondary data. Besides these the libraries of FSTPP and the University of North Bengal were time to time consulted by him for the sake of this research.

The data collected through primary and seconday sources were processed after necessary checking and editing. In course of data processing the completeness and accuracy of data were looked upon. Data were analysed both quantitatively and qualitatively. The quantitative data were analysed through preparing the tables and statistical calculations. Simple statistical

methods consisting mostly of percentages were calculated. The analysis of qualitative data were made through systematic and analytical descriptions of the facts. The methods of comparison have also been used. The data were finally organised and presented into nine chapters.

Limitations

Despite repeated visits and serious endeavours, the study could not be totally free from limitations.

It was in fact not possible for the author to take interview of all the employees. Due to certain limitations of the authority of the power plant and also of the author he could not go for a total enumeration of the employees. Besides, there were other limitations too, the most important among them are as follows:

1. Some employees thought that this research work was being carried out on behalf of the management that brought in a undesirable bias.

2. Some others had the notion that the researcher had political linkages too which affected free and frank exchanges of views.

3. Another set of employees had the notion that their views would be relayed to the management to their disadvantage.

Hence they were rather apprehensive. Another section of workers took the present researcher as a member of the press whose column might not be the safe medium to ventilate their grievances.

4. Some others felt that they had no reason to be generous for the personal benefits of an individual. One of the employees told the present author, "You will be educationally benefited by this work. You may get better service, better benefits but what is our profit out of this?"

For various reasons, the management of FSTPP was also rather non-cooperative at the initial stage but gradually over the period, a good rapport could be established.

In order to observe the informal life in the residential colony, the author visited several times the temporary township, permanent township and the field hostel. But mostly due to disinterest of the people, the present author was compelled to restrict his entrance only to the employees' quarter and could not reach the depth of information as he desired.