PREFACE

In western societies, industrial sector played an important role in the process of transformation of the economy since the late eighteenth century.

That the process of development in non-western societies is substantially different is borne by the fact that our industries have failed to replicate the same. Experts working on non-western economics of the developing world have now more or less agreed in last three decades that the historical experience of economic growth and development can in no way be fitted into the conventional models generated in the west. The increasingly high rates of urban growth in India, for example was not supported by an expanding secondary sector; moreover, in most cases the secondary sector too exhibited signs of informal nature. Therefore, the urban economics of developing countries of the world reveal structural dualism in terms of size and mode of production organization, technology, productivity and labour markets. Two sectors – one organized formal firm sector and the other unorganized/informal/bazaar sector – intermingle and interpenetrate. This has happened because the urban economics of developing countries could promote only a narrow front of the modern, formal, organized economic activities offering a limited labour absorption capacity, leaving aside a large section of the migrant as well as local workers unabsorbed and unemployed. The cheaply available, almost unlimited supply of unskilled labour force is absorbed in the informal sector. It has been estimated that between 20-70 per cent of the total economics of metropolitan cities of third world countries are in the informal sector. The informal activities include various traditional and non-capitalist forms of production from agriculture to agro-processing to various forms of crafts and manufacturing to construction, trade and service activities.

The relationship between the formal and informal sectors is constantly in a flux; it is shaped and reshaped according to the needs and conveniences of the formal sector.

The research work presented here studies in detail an informal sector industrial activity: agro-processing units of various size in context of Burdwan city. The eastern part of Burdwan
district has been the recipient of all post-independence ‘developmental’ initiatives – irrigation waters from the canals of the Damodar Valley Corporation, new seed-fertilizer technological inputs through various intensive agricultural development programmes, and land reform measures. As a result, the eastern part of Burdwan district has turned into an agriculturally prosperous region with a buoyant economy, which provided impetus for growth of agro-based raw materials processing industries. Rice mills, husking mills, oil mills, Chira (pressed rice) mills and dal (pulses) mills etc. are the units that strengthen the agricultural landscape of this part of the district and constitute an important segment of the industrial sector of the urban economy of the regional mode, that is, Burdwan city.

Rice and such other agro-milling units have been developed in Burdwan not only in response to the agricultural prosperity of the region, the other factors played crucial roles are the decline of traditional crafts industries of the city. Burdwan’s history as a royal seat ruled by a non-Bengali king made capital available for investment from the elite business community who migrated along with the maharaja, lack of interest on the part of the state and central governments to exploit the excellent locational advantages of the city with regard to Calcutta metropolis and Asansol-Durgapur industrial belt, and availability of local as well as outside areas seasonal surplus-workers also led to the rapid growth of agro-based industries in an around the city.

Our research proposes to enquire into the structure of the agro-processing industry of Burdwan as an informal sector activity in terms of production technology, ownership, employment and marketing, its role in the regional and urban economy, and its resultant environmental aspects.

The dissertation has been presented in nine chapters.

The first chapter provides answers for the fundamental questions that can arise in the mind of a reader. A profile of the study region – in respect of physical environment, historical evolution, contribution of the Raj family in agricultural economy of Burdwan, and the colonial period – has been given. A little more emphasis has been put on developments in the last century, and the emergent economic dichotomy in Burdwan district. This chapter also gives an outline of changing rank of Burdwan city among the urban centres of West Bengal since 1901 till 2001. After justifying the selection of Burdwan as a study region, we have
given a review of available literature on similar studies of industries in general and industries of West Bengal in particular. We have also given an indication of the current trends in industrial geographical studies. Above all, the chapter gives some essential outlines of the research design – methodology, time span, data source and usefulness of research, sample selection and finally, limitations.

The second chapter tries to put the ‘forces’ working behind the changing agricultural scenario in West Bengal especially in Burdwan district. It describes the changes in pre-Mughal, Mughal and British periods, especially the land tenure system developed in late eighteenth century, and the post-colonial changes in agriculture, particularly the Intensive Agricultural Development Programme (IADP) and more recently the Operation Barga. Other factors influencing agricultural development in this region were the contribution of Damodar Valley Corporation and role of the Left Front Government have also been explained in this chapter.

The third chapter clarifies the informal nature of agro-based industries in Indian context especially in Burdwan region. The definition, evolution and classification of small-scale industries have focused here. This discussion is particularly relevant, as small-scale industries are usually in the informal sector but the government of India identifies industries based only on the size criteria. Industrialization in India, the concept of informality and the informal sector of economy, types of informal industries have also been discussed here. Furthermore, we have added discussions on relation between third world urbanization and the informal sector of urban economy and also informal sector and urban growth in Burdwan region. The causes of persistence of the informal sector in third world countries like India have been examined. Finally, this chapter discusses the main focus of our research work, the rice milling industries, and how far it shows informal characteristics.

After a brief discussion on the history of government control of rice mills, the fourth chapter analyses physical geographical and socio-economic factors for localization of rice milling industry in Burdwan region. The physical geographical factors include availability of land, raw material, climate, water resources and energy. The discussion on socio-economic factors is limited to capital, labour, transport, demand and supply, market, government control, exemption of license, management, agglomeration, role of trade unions, improved technology and finally, the size of plant.
Chapter five deals with the evolution of operational processes – starting from hand-pounding system, to husking mills, traditional limited capacity rice mills to finally terminating at large capacity fully modernized rice mills equipped with mechanical dryer and sheller-cum-polisher-cum-separator system. We have also focused in this chapter on different methods of paddy processing like the oldest batch method, improving towards parboiling method and pressure parboiling method. Instead of traditional sun-drying of paddy, the advantages and disadvantages of mechanical drying system of paddy have also been discussed in this chapter. Governments’ role in modernization of rice mills, rice mill machinery manufacturing in India, advantages of modernization and finally the processing techniques prevailing in Burdwan have also been analyzed in this chapter.

In the sixth chapter, we have outlined the results of survey of rice mill owners as well as the workers. In this chapter we have drawn profiles of seven selected rice mills based on our survey of them. These mills are categorized into large, medium and small, based on production capacity. The profile focuses on common features of rice mills in Burdwan as well as distinguishing characteristics, location, per day milling, total working days, source of raw paddy and labour characteristics of selected surveyed rice mills. We have also discussed in this chapter the social well-being of rice mill workers and finally the status of women workers in this industry.

In the seventh chapter we have described in detail different by-products of rice milling – like rice bran, rice-husk, ash and broken rice and their economic utilization. Among the above four by-products the economic importance of rice bran is greatest because it is meant for producing rice bran oil. In this chapter we have also focused on a particular rice bran oil mill of Burdwan region because of its distinctiveness in respect of marketing, capital investment, involved technology, minimum eligibility criteria of workers for entry in the plant, predominance of more than one earning member in workers’ family and relation between number of leaves and wage rate. Through this, we have tried to prove that in spite of its distinctiveness, rice bran oil plant also retains its informality due to the socio-economic characteristics of its labour force.

In the eighth chapter, we have looked into different agro-processing industries other than rice mills in Burdwan region. The processing, technology involvement, marketing, labour
characteristics, ownership characteristics and distinctiveness of industries like husking mills, *chira* mills, mustard oil mills, *muri* processing units, *khoi* making in rural households, spice-grinding units, *atta chakkis* and *dal* processing units have been discussed in this chapter. The relevance of discussion about these industries lies in the fact that these industries play a significant role in the local agricultural economy and society.

The last chapter concludes our study. This chapter identifies common problems faced by rice milling industry. The present scenario in rice mills as well as in other agro-processing units, however, has changed greatly in the last two years when imported rice has entered the markets in the country under the new economic policy. We have discussed the various reports and recommendations to save agro-processing industries and have finally suggested some possible ways and means for reviving the rice mills.