

Changing pattern of work participation and its impact on the regional economy of Paschim Barddhaman District, West Bengal

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1. Introduction

Work is an economic pursuit that people are engaged to earn their livelihood. Census department consider work as participation in any economically productive activity with or without compensation, wages or profit. The work participation rate is simply defined as the ratio of working population to total population, is considered as an important indicator of economic wellbeing of any economy. Work participation may found to vary gender wise in any region. Proportion of male worker to male population is defined as male work participation rate and proportion of female worker to total male population is commonly defined as female work participation rate.

Work participation rate not only reflects the strength of economic activities but also indicate the employment situation of any region. and also an image of income scenarios. Thus this variable serves as a surrogate for command of people over commodities. Thus,they can be use as an indicator for the resource utilization pattern of an area and also shows the participation of people in the resource utilization. The larger the work participation rate, the higher is the economic prosperity and so a greater level of human development is expected to be achieved (HDI 2007). Hence, higher is the ratio of work participation higher will be the income generation which in turn reduces the dependency ratio that are useful for the alleviation of poverty (Squire, 1980).

So it can be inferred that work participation in any economy is an useful indicators for the socio-economic

progress. According to Chambers, 1988 livelihood isthe common method of how people make a way of life andwhether their occupations are more vibrant or vulnerable overtime. Livelihood refer to stable and socially secure condition intern of access to existing resources, ownership of properties,secure occupation, secure income as well as household's assetsand various things.

2. Study area,

The present study has been conducted on the PaschimBarddhaman district where the intensity of land transformation is very high due to urban industrial growth since last centuries. . The geographical location of the study area lies within the administrative control of 12 Police.Station,namely SalanpurChittranjan, Kulti, Baraboni, Asansol, Hirapur, Jamuria, Andal, Raniganj, Faridpur Durgapur, and Kanksa under Bardhaman district. The region is bounded by the Ajoy River on the north, Damodar River on the south, river Barakar and Mithon Dam on the west and roughly PanagarhMoregram highway in the east with latitudinal and longitudinal extension approximately of 23°25' and 23°40' and 86°40' to 87°30'. The region spread over an area of about 1650 sq km. The boundary of the study area conforms to the boundary of Asansol Durgapur Planning Region.The region is economically developed area principally based on mining and industry with excellent connectivity by rail, road and air network with other parts of the country.

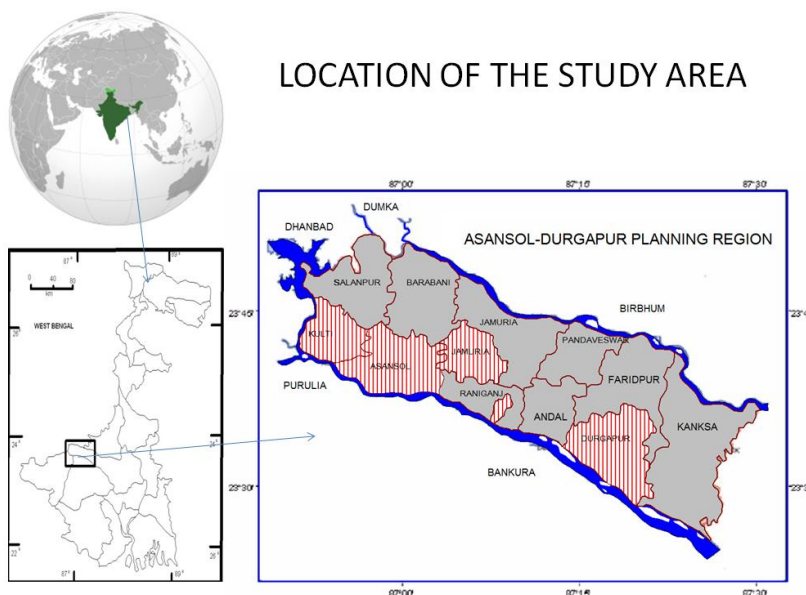


Fig 1: location of the study area

3. Objectives

The present study has been conducted to examine the spatio temporal pattern of working force along with its changes over the last four decades. Another important objectives of the study is to understand the mobility of the working force over the various sectors of the economy and its resultant consequences on the economic development.

4. Data set and Methodology:

The present study is basically a panchayat-level study. Hence, secondary data about the panchayats constitute the data base. Past information about the working force has been collected from different sources, historical records and maps. Census data has been collected as it is relevant and will cover all the aspect of the study especially the occupational. Considering 1971 as base year 1991 and 2011 census data has been used subsequently for the completion the study. In some cases data has been collected from other sources like district human development report, Bureau of Applied Economics & Statistics etc. Finally empirical study and field survey has been performed for cross checking of results and to make the study true to reality.

In order to answer the question, how do the present economy has been moulded by the changing pattern of

working participation in the study area a series of simple data analysis has been restored to. While breaking up the whole studies into two major parts that deal with changing pattern of work participation in various sectors of economy in one hand and the changing panorama of occupational pattern and its structural mobility on the other different cartograms based on GIS tools subsequently employed. It should be mentioned that the present organization of blocks and municipalities underwent some changes like creation of Pandebeswar blocks, abolition of Barnpur, Hirapur etc. The census category of occupational class of 1971 has slight difference with 2001 so, this has been rearrange and segregated for completion of study.

5. Result and Discussions

Spatio-temporal pattern

An attempt has been made to study the block wise pattern of the work participation rate and its composition in terms of agricultural worker and non agricultural worker to the total population for 1971 and 2011 respectively. It will enable us to know the changes in the work participation in agricultural and non agricultural sector and the dynamics of the work force. The following table shows the changes in the composition of work force.

Block/municipality	Work participation rate (1971)	Share of agricultural population	Share of non agricultural population	work participation rate (2011)	Share of agricultural population	Share of non agricultural population
Salanpur	30.27	9.09	21.43	31.31	3.42	27.89
Barabani	33.47	15.50	14.15	33.58	10.22	23.36
Jamuria	31.97	11.13	21.42	31.76	7.56	24.20
Raniganj	34.77	3.74	26.16	31.50	1.10	30.40
Andal	45.67	7.28	37.91	31.64	1.78	29.86
Pandebeswar	-	-	-	30.79	3.18	27.61
Faridpur Durgapur	18.90	10.96	7.95	34.61	14.12	20.49
Kanksa	30.42	19.13	10.21	42.37	16.64	25.73
Kulti (M)	27.92	3.24	24.73	30.07	1.33	28.74
Asansol (M Corp.)	27.29	2.99	24.30	32.61	1.15	31.46
Durgapur (M Corp.)	30.27	2.51	27.76	35.13	0.99	34.14
Zone	30.78	6.61	23.54	33.15	3.89	29.26

Source calculated from census table of 1971 and 2011 by author

Table 1: occupational Structure of 1971 and 2011;

Sharp decrease has been found to occur in the agricultural work force for all the blocks and municipal areas during the last 40 years. The overall work participation of the study area has increase slightly (almost 2.5%). This rate is, however, not uniform for all the spatial unit. For instance, Faridpur and Kanksa block chiefly based on agricultural activity registered a strong increase in the work participation whereas mining zone of Andal, Raniganj shows a decreasing pattern. Rest areas including the manufacturing belt are remains more or less stagnant in terms of its work participation. To elaborate Kanksa and Faridpur block has a work participation rate of almost 30% and 19% in 1971 respectively which rose to 42% and 35% in 2011 respectively. Andal and Raniganj has a work participation rate of almost 46 and 35% respectively in 1971 which drops to 32% for each in 2011. Except them there has been a slight

increase in the work participation rate in the urban areas like Asansol, Durgapur and Kulti region where the rate found to be grows by 3 to 4% during the last 40 years. For Salanpur, Barabani and Jamuria the work participation remains almost stagnant for the past four decades.

So far as the composition of work force is concerned all areas losses it's agricultural population except Faridpur. Sharp decrease has been occurs in the central and western blocks which are depends mainly on the mining activity. On the contrary, all areas excluding Andal experiences tremendous growth in non-agricultural workforce for the time concerned. Faridpur and Kanksa which depends mainly on the agriculture has also increase their non agricultural work force manifolds.

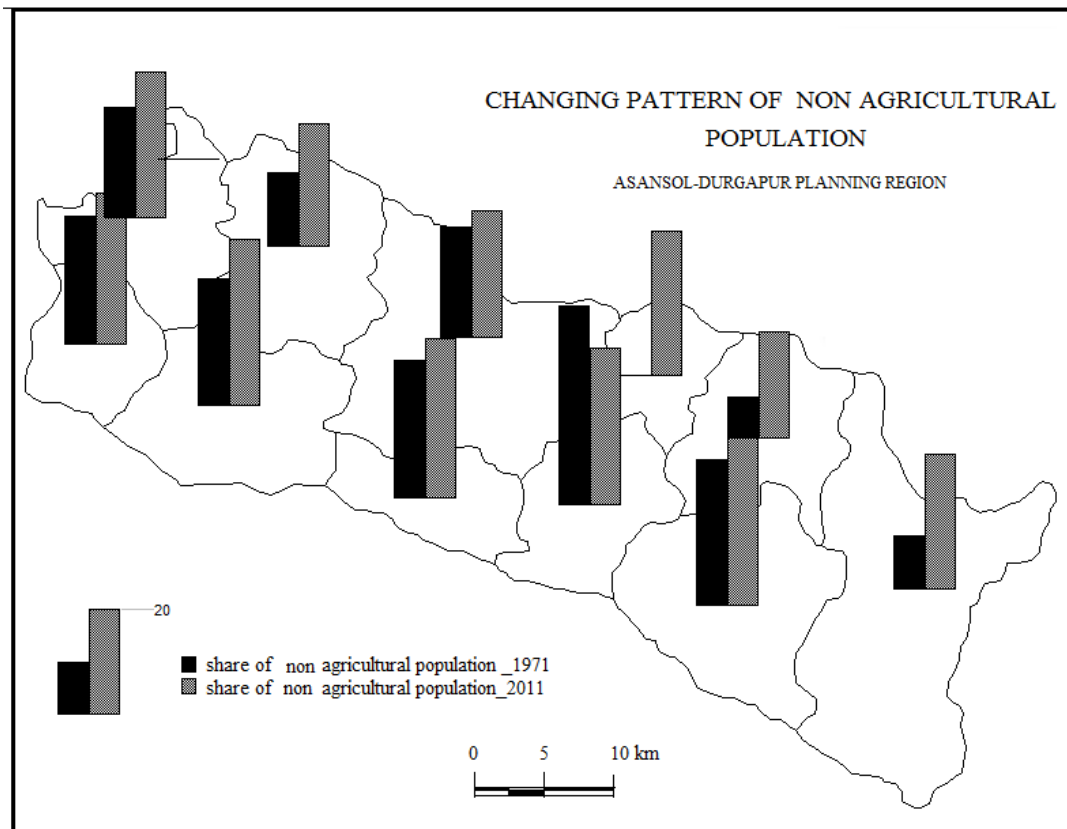
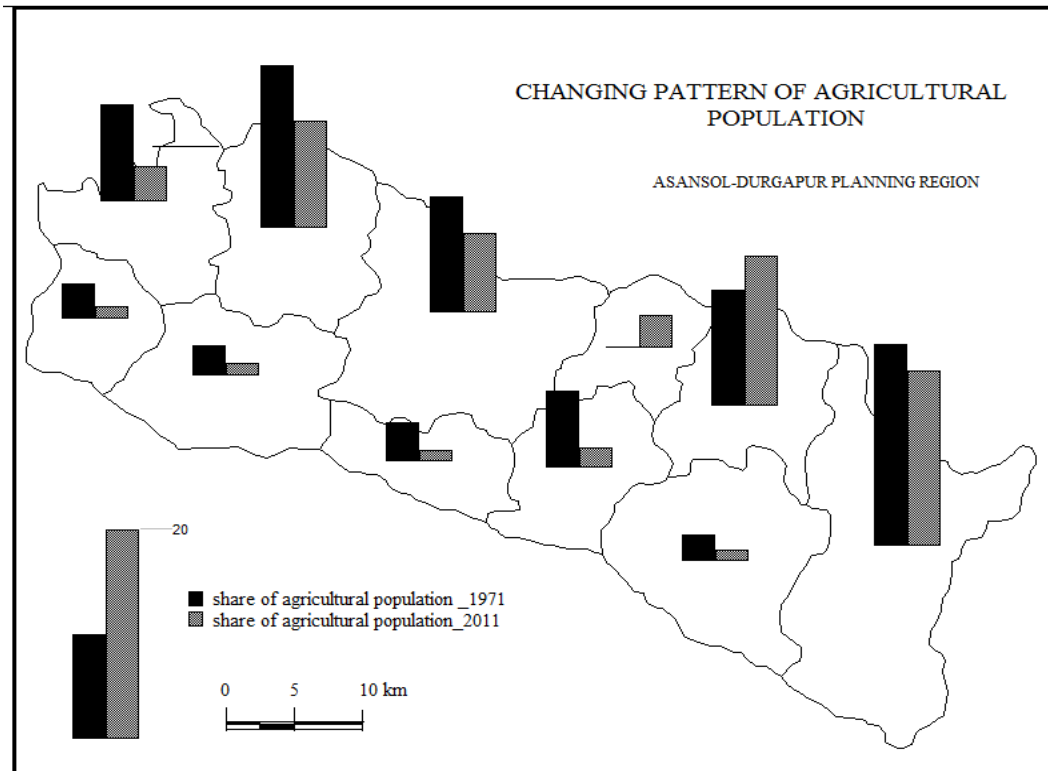


Fig 2: Changing occupational pattern of the study area

So far we discussed the work participation rate in a broad framework in the next section we are going to calculate the work participation rate for each individual administrative unit. Accordingly region having work participation rate of below 30%

has been classed into low group similarly medium and high group has also been identified with a value between 30 and 40% and more than 40% respectively.

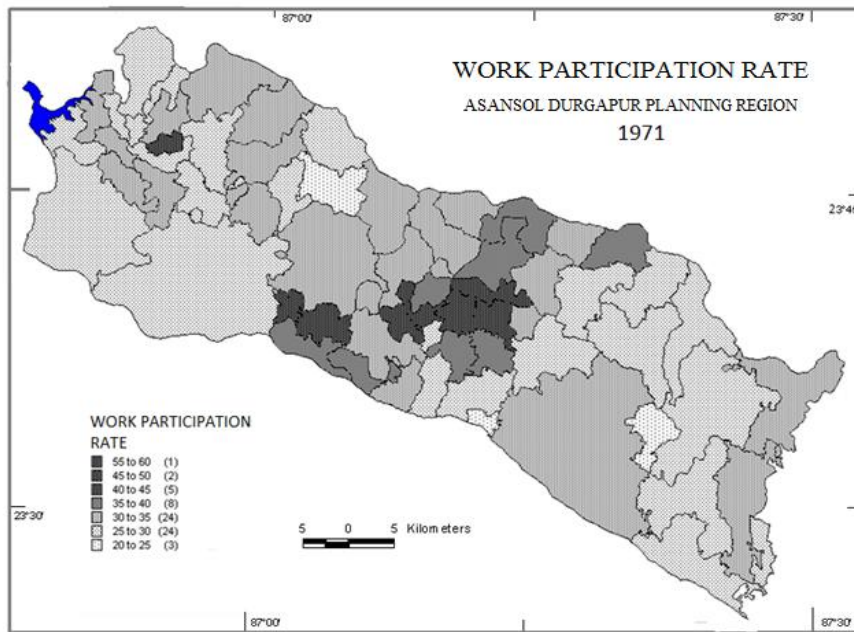


Fig 3: Work participation rate 1971

The work participation rate in 1971 shows that the central mining belt has a general higher participation rate. Practice of mining activity along with agricultural works may have given rise to such a high rate in the study area. Asansolkulti region along with the agricultural area surrounding the Durgapur area however registered a low rate. Rest of the area especially the mining and agricultural belt has a fair rate. Precisely the mining area has a greater work participation rate followed by the agricultural belt. Except Durgapur industrial belt has a general low work participation rate.

Analysis of the work participation rate in 1991 shows a shifting of higher rate towards the agricultural area. Higher work participation rate found to be prevails in the all panchyets of Kanksa block followed by agricultural belt on the Baraboniblock. Fewer patches found to be occurring in the coal belt region of central area especially in Ethora, Haripur and Amrasota where the work participation rate is considerably high. The rest of the panchyet under mining zone and industrial area coming next where the work participation is moderate. Most of the area under Salanpur, Jamuria and Andal registered a low work participation rate.

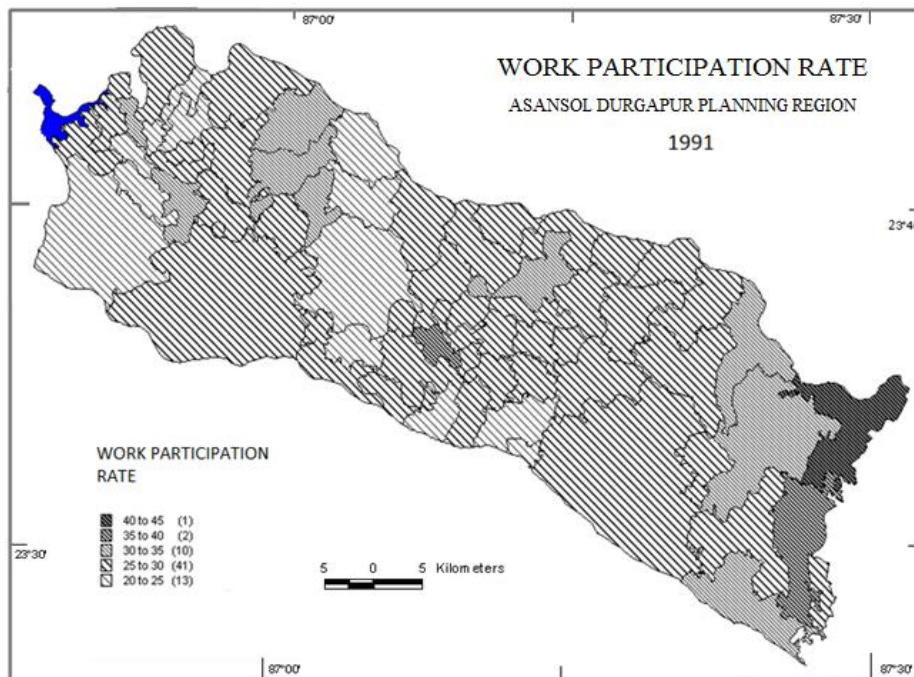


Fig 4: Work Participation Rate 1991

The work participation rate for 2011 however shows further consolidation of work participation rate in the agricultural belt of the eastern part. However, the Work participation rate in

another agricultural belt that is of baraboni and jamuria there is sufficient decrease has seen to have occur. The Durgapur faridpur block also registered good work participation rate

during the said period. The performance of the rest of the block however remains low.

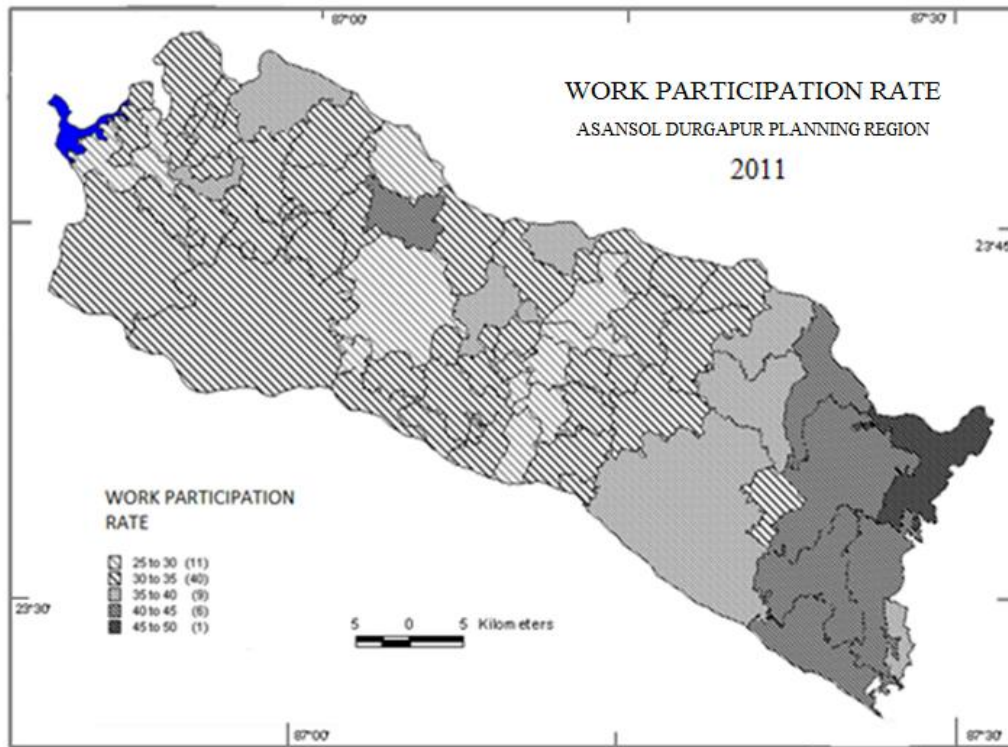


Fig 5. Work Participation Rate 2011

So, comparison of Work participation rate for last 40 year shows a gradual decrease in case of the mining industrial area and there is a consolidation for the agricultural belt of the study area. General participation rate for the same period shows gradual decreasing pattern. This probably implies that the industries mostly are of traditional one and suffering from stagnation hence are not being capable of attracting population and driving out labour towards non-industry. So this necessities an enquiry to look into sectoral composition of the economy of the study area.

6. The economy and its sectoral composition

Urban industrial growth is a major driving force for land use land cover change in the one hand and tends to metamorphose the socio economic landscape on the other. In fact, the taxonomical analysis of the occupational patterns is basic to the study of economical structure of any region that is reflected by the resource utilization pattern by the society on time and space. As a city grows the economy is likely to be shifted from predominantly primary based to secondary, tertiary, quaternary and so on. The process often termed as sector shift model (Haggett 2001).

By adopting a traditional approach the occupational component can be divisible into three major parts: primary including cultivation, forestry, mining, secondary includes household and other industry and finally tertiary comprising trade, commerce and other services. However we make slight modification in the classification scheme as

the agricultural sector composed of cultivators and agricultural labourers organize sector include organize manufacturing and mining activities and worker from other organize activity and finally the unorganized sector or the informal sector incorporating all other services not grouped into earlier category.

Agricultural sector

From the analysis of 1901 census it is clear that 58.9% of the total population of the district is supported by agriculture a figure that is much lower than national average (Peterson 1910). By the year 1971 the study area has its 6.64% of the total population engaged in primary occupation. Higher proportion of agricultural worker found to be occurring in the northern part of Kanksa, JamuriaBaraboni, Salanpur and Faridpur block. By 1991 the figure reduced to 5.15%. Further erosion is found to occur in the next 20 years; in 2011 only 3.89% of total population is found to be engaged in the agricultural sector. Considerable reduction occurs in the western part of the study area, particularly in the Salanpur, Jamuria and Baraboni block. The massive depopulation in the agricultural sector can be assumed from one fact that in 1971 almost 50% panchayet have their 15% population engaged in agricultural activity but it drops to 16% in 2011.

In 2011 there has been 36 panchayets out of 62 where below 5% people were engage in agricultural activity.

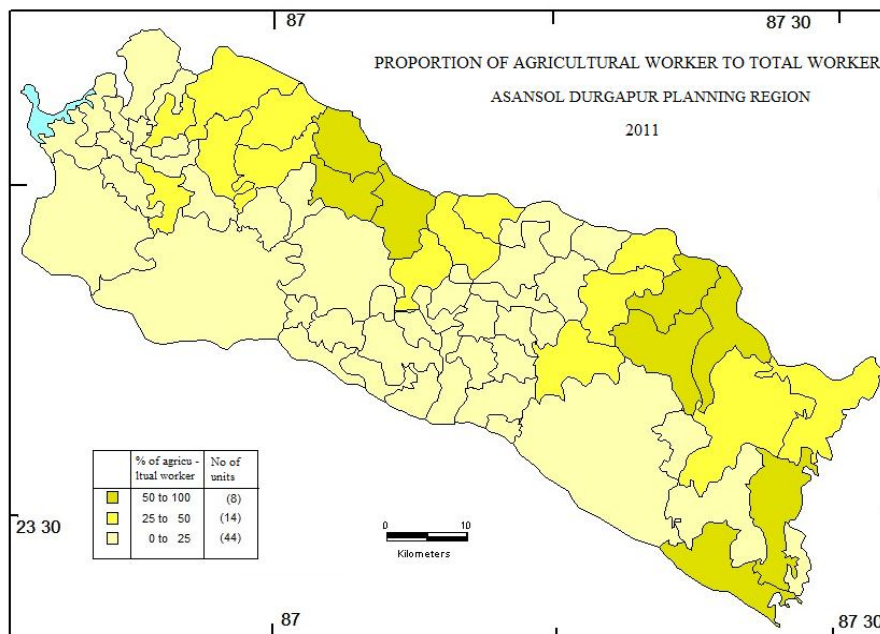
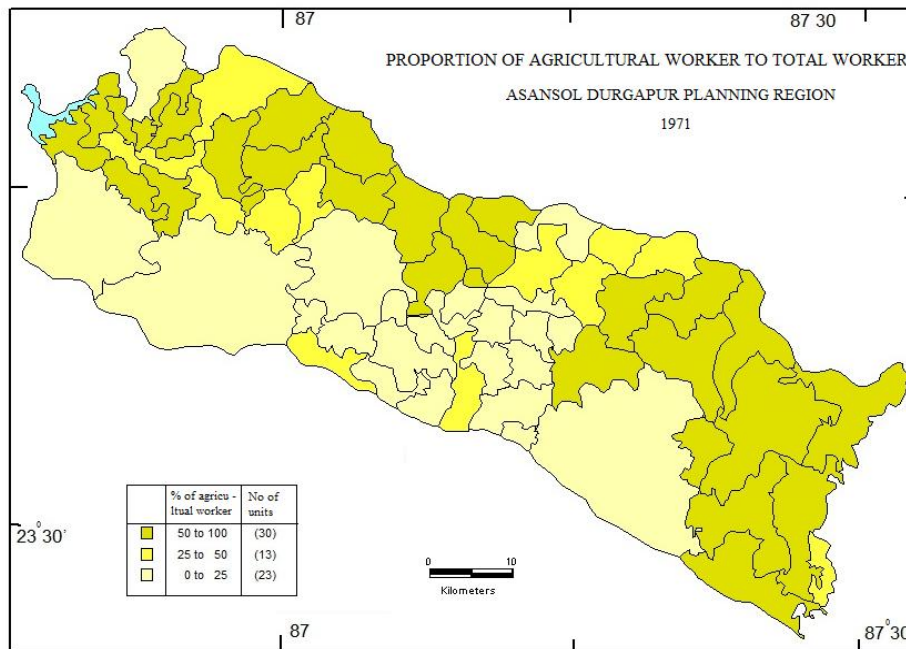


Fig 6 & 7 share of cultivator and agricultural labourer to total worker, 1971 & 2011

When the has been extended to the panchyet level and compare the figure within the working population it reveals that there are 18 (almost one third of the total panchyet) such panchyet in 1971 where more than 70% of the total working population has been engage to agricultural activity. Most of the panchyet belongs from five blocks namely Kanksa where three panchyet (Bidbihar, Bankatiand.Malandighi), Faridpur where four panchyet (Laudoha, Pratappur, Jemua and Gourbazar), Jamuria where five panchyets (Bahadurpur, Churulia, Madantore, Chinchuria and Hijalgora) , Salanpur where four panchyet (Alladi, Jitpur-uttarrampur, Ethora,andRupnarayanpur) and finally from Baraboni where two panchyet (Jamgram and Punchra) where majority of the workforce has been engaged to agricultural sector.

Of the panchyets mentioned above only two (only 3%) has been capable to keep the supremacy of agricultural work force

to the total workforce in 2011. They are Madantore of Jamuria and Bidbihar of Kanksa block. Churulia, Chinchuria and Hijalgora of Jamuria and Pratappur and Gourbazar of Faridpur to some extent able to keep the greater share of agricultural workforce; although the decline in the share has been marked for the time span mentioned above. Almost 50% of the total panchyets has shown huge decline of agricultural workforce; most of them are from Pandaveswar, Raniganj and Andal block. In 1971almost 22% of the total workforce has been engage to agricultural activity that falls to 11% in 2011. So, on an average the planning region losses nearly 10% agricultural workforce during the past 40 years.

Organized sector

The industrial population accounts for 16.7% people, of them about half are engaged in mining activity in 1901(Peterson 1910). In 1971 15.72% of the total population

found to be engage in organize sector. Population in organize sector found to be concentrated in the mining industrial belt. Manufacturing is a late 60s phenomena which shows a boost up to 1990. By 1991 the figure decline to 12.35%. The later phase shows a decline in heavy manufacturing and rising of

small scale industries. According to Bureau of Applied Economics and Statistics data, the share of employment in this sector shows a decreasing trend of 16.35% in 1993 to 13.7% in 2007.

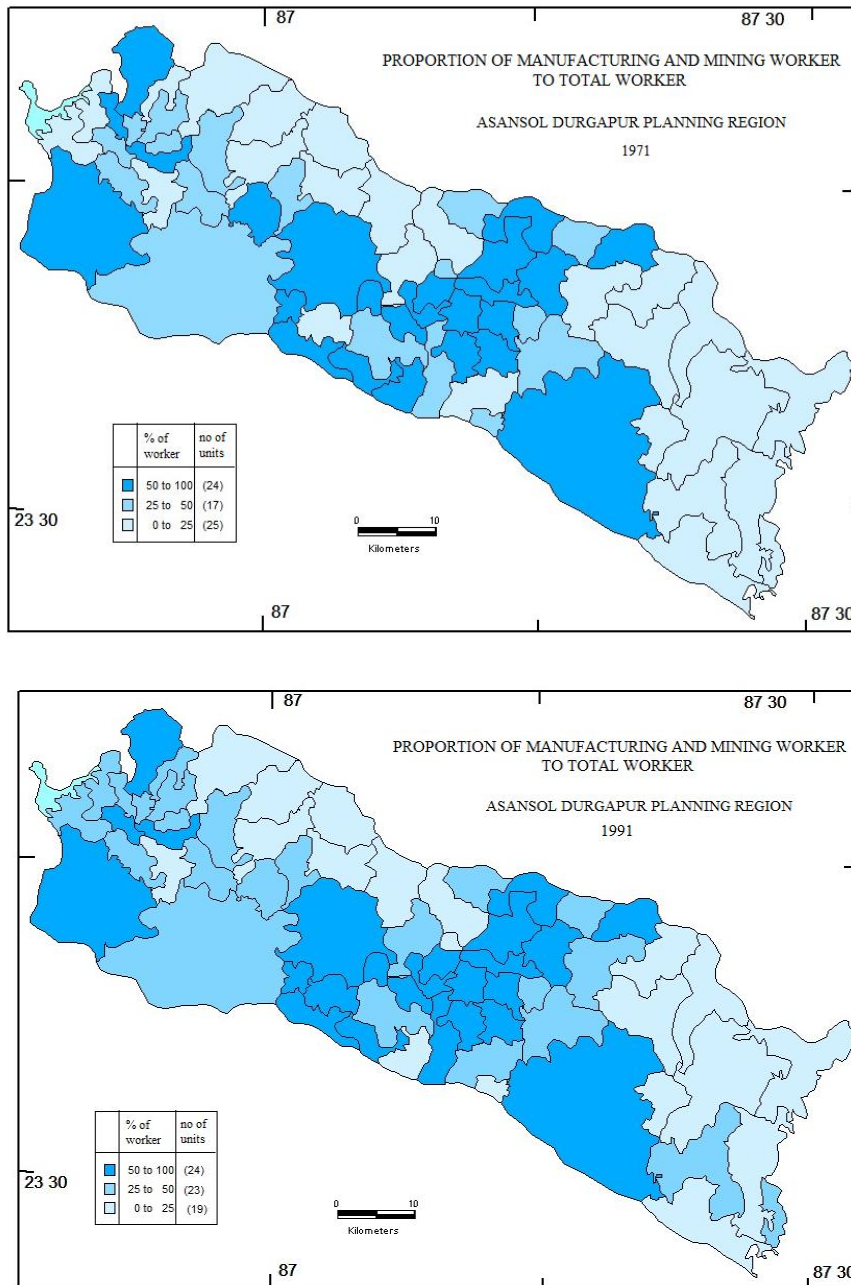


Fig 8 & 9 share of organize sector worker to total worker, 1971 & 1991

On the panchayet level there is, however, 12 such panchayet where more than 70% of the working population has been earn there livelihood from organized sector in the year 1971. Most of the panchayet belongs to Andal and Raniganj where mining activity is found to be dominant. Contrary to this there are 18 such panchayet where less than 15% of the working population is attached to the organized sector. They are mainly from the Kanksa, Faridpur, Jamuria and Salanpur block. In 1991 the picture remain more or less same. In that year there has been 15 such panchayet where more than 70% of the working force engaged in organized sector. On a regional scale, however, there has been slight decline in the overall work participation in

organized sector as nearly 3% decline are registered within 20 year. Establishment of small scale private entrepreneurs in mining and manufacturing and closure of several large scale manufacturing may further aggravate the scenario during the past two decades.

Unorganized sector

Decline in the work force in agriculture and organize sector creates mass exodus who generally find themselves in the unorganized sectors. People evacuated from the agricultural sector, according to the common notion, have got an opportunity to absorbed in the manufacturing sector. But the

reality is that the post 90 era is marked by globalization, liberalization and privatization of the existing firm. In this context casualization and squeezing of formal sector creates more people to be pushed out from the formal sector who actually absorbed in the unorganized sector as petty worker. In 1971 8.14% of worker to total population engage in the unorganized sector that in 2011 raised to 29%.

Majority of the blocks at that time having greater concentration of primary occupations. Contrary, lower concentration is found to be in Asansol, Raniganj, Kulti and Durgapur where major chunks of population are engaged in secondary and tertiary occupation. However, after two decade the overwhelming dominance of primary occupation has declined. Marked decline is found in Salanpur (19%) and Kanksa (10%) block. Further decline can be seen in 2001 where all the blocks having less than 50% agriculture related worker of the total population.

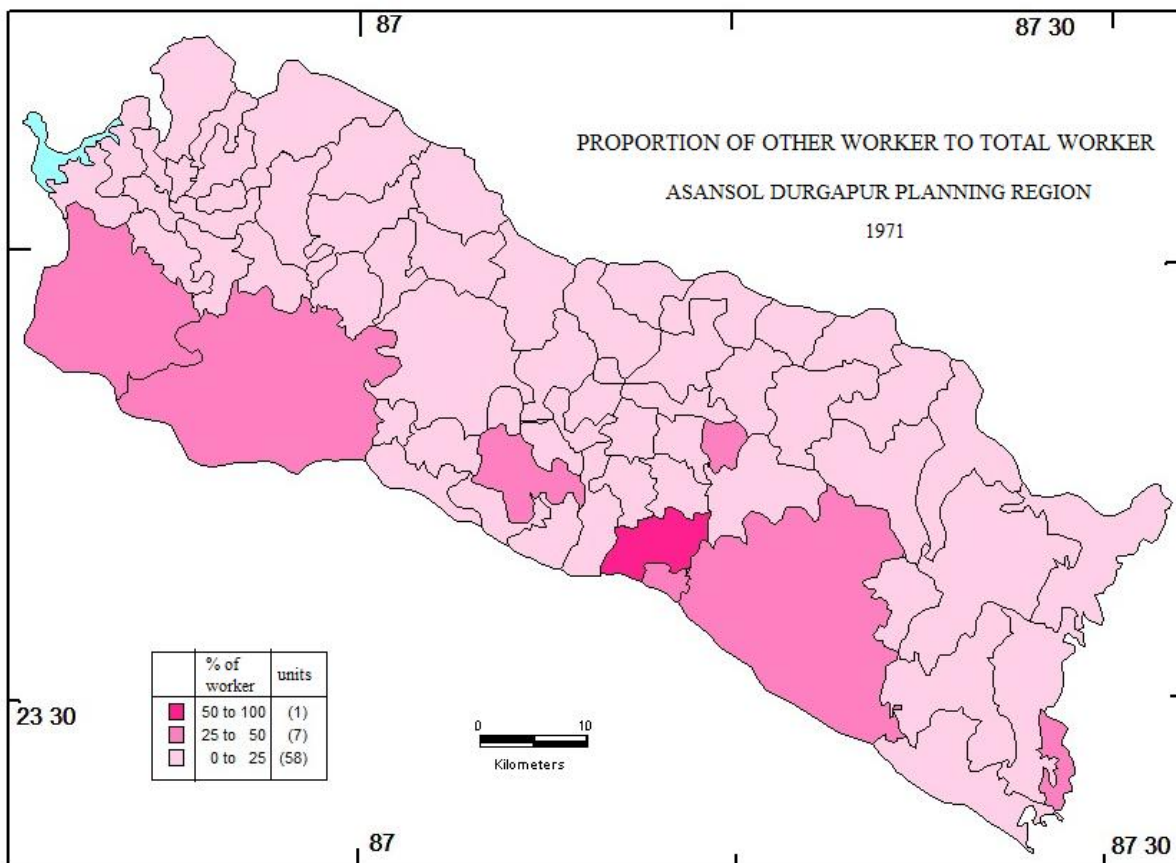
So far as the panchayet level is concerned there is a general consensus about the increasing trend of work force engage in unorganized sector with time in different panchyets during past four decades. During 1971 almost 60% of the panchayet having less than 25% of their working force engage in unorganized sector. Only the urban areas and the rural areas occupy fringe position found to have greater propensity of unorganised sector worker. After merging the proportion of unorganized sector worker with organize sector, it is found that almost 30% of the panchayet having lesser than 25% share in both the sector. Only the Rupnarayan area of Salanpur, several panchayet of Andal and Raniganj shows fairly greater proportion of organized and unorganize workforce.

The scenario change drastically after reform era that is in post 90s, when there is a higher proportion of unorganized worker in almost every panchyets. During 2011 all the urban area having more the 85% of the total workforce that absorbed in organized and unorganized sector. Only few pockets in the northern part of the study area found to be lagging far behind the average.

Surprising enough the house hold worker does not grow up to replace them. What is here unlikely is that the secondary sector does not boosted up by this declination instead negative growth is found in the secondary sector. Another marked criterion of this occupational change is that the tertiary sector is booming up. So, it may be safely concluded that the displaced people from primary sector find themselves into tertiary sector which is a typical feature of third world urbanization. In fact, with the advance of globalization the cities are acting as door way for the foreign investment that is often termed as tertiarization is found to be on action to shaping the landscape.

Sectoral transformation

The sectoral composition of district income reveals that the agriculture and its allied sectors i.e. the Primary Sector contributed 41.69 per cent of State income in 1993-94. The contributions of secondary and tertiary sectors were respectively 23.06 per cent and 35.25 per cent. It is interesting to note that during the period 1993-94 to 2004-2005, the economy of Bardhaman moved very fast towards the tertiary sectors.



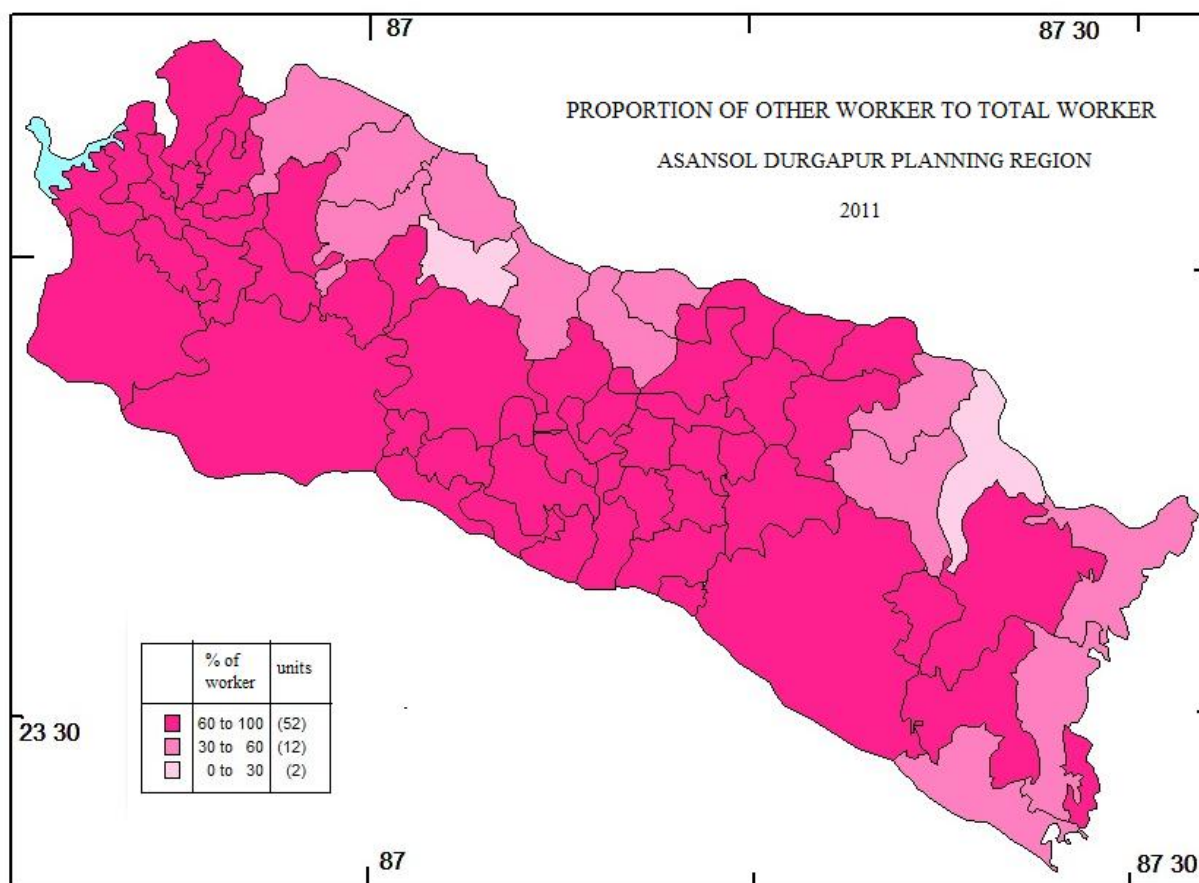


Fig 10 & 11 share of un-organize sector worker to total worker 1971 & 2011

Consequently, in 2004-2005, the contribution of primary sector reduced to 30.79 per cent of district income from 41.69 per cent in 1993-94, while the contribution of tertiary sector increased to 49.72 percent from 35.25 per cent in 1993-94 at current prices. The contribution of secondary sector to district income declined marginally to 21.29 per cent in 2004-2005 from 23.06 per cent in 1993-94.

7. Evaluation

To sum up, it seems that all the three processes going on simultaneously in the study area. What is more likely here is that the spillage of population and retarded in migration due to weakening of economic pull factor are contributing to this kind of population growth.

Our hypothesis as above is corroborated if we examine the work participation rate of the study area. The work participation

of the 1971 shows higher rate for all the blocks and municipalities. Corrosion of the rate can be found in the next two decades. The work participation rate in the mining industrial area remains low compared to the agricultural belts. Some improvements in the rate found to be occurred in 2011 and that considered to be occur at the cost of some others area in the study region. Interesting fact is that the changing work participation rate supports the spillage of population away from the core.

If we go inside the overall trend of the work participation rate we find that there is decay of agriculture and participation in agriculture is drastically falling, but most surprisingly there is substantial increase in the un organize sector with only some improvements in organized manufacturing sector. People moving out from agriculture may be taking restore to this un organize informal sector.

References

1. Bureau of Applied Economics & Statistics. 2005. Government of West Bengal
2. Chatterjee, S. 2011. Evolution of Urban Landscape and Occupational Change in Western Bardhaman. Practicing geographer Kolkata. P 407-415
3. Chambers R. and Conway R., Sustainable rural livelihoods: Practical concepts for the 21st century, IDSDiscussion Paper 296, (1992)
4. Chambers R., Sustainable livelihoods, environment and development: Putting poor rural people first, IDSDiscussion Paper 20, (1988)
5. Goldar, B. & Aggarwal S.C. 2010. Informalization of Industrial Labour in India: Are labour market rigidities and growing import competition to blame?, presented at the 6th Annual Conference on Economic Growth and

- Development, December 16-18, 2010, Indian Statistical Institute, New Delhi, p 1 -25
6. Haggett, P. 2001, Geography a Global Synthesis Pearson Education Limited England. P 232-267
 7. Harvey, D. 2000. "Globalization in Question", in Johannes Dragsbaek Schmidt and Jacques Hersh (Eds.), Globalization and Social Change, London: Routledge.pp 24-25
 8. Harvey, D. 2003. The New Imperialism. Oxford University Press.p 63-87
 9. HDI. 2007. The District Human Development Report Bardhaman
 10. Peterson, J C K. 1910. Bengal District Gazetteer Burdwan; Bengal Secretariat Book Depot. Calcutta. P 52-97, 111-184
 11. Sadhukhan, S., Sadhukhan, S. and Guchhait, S. 1997. Geography and Globalization; Geographical Review of India, Vol. 59, No.2,pp 111-120
 12. Sen, A.K. (1993). Capability and well-being, in A.K. Sen and M.C. Nussbaum, The
 13. Quality of Life, Oxford: Clarendon Press.
 14. Squire L., Introduction: Poverty and adjustment in the 1980s, The World Bank Economic Review, 5(2), 177-185,(1991)