



## An SDGs 2030 Perspective Analysis of Income Poverty in Md. Bazar C.D. Block, Birbhum District, West Bengal, India

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### Abstract

Eradication of poverty is one of the targets of the 17-point Sustainable Development Goals (SDGs) 2030. Although Millennium Development Goals (MDGs) have shown marked achievement, about 836 million people of the World still live in extreme poverty (WHO, 2015). The present research focuses on the pattern of income and poverty in the Md. Bazar C.D. Block of Birbhum District, West Bengal, India from the perspective of SDGs 2030. The empirical study has been conducted through a door-to-door survey to extract the spatial pattern of poverty with respect to the income of the people and its associated factors based on the 'proportion of people living below \$1.25 a day' of United Nation Organization's (UNO) SDGs 2030. It is found that about 74.88% of the people still live in extreme poverty in the study area with a remarkable spatial variation in the level of household's income. High unemployment ratio and high dependency ratio have emerged as its root causes. Since 1990, the extreme poverty rate has declined by more than half in the World; but in the study area the situation still remains grim. Increase in job opportunities in productive sector for all including women is needed in order to mitigate the situation.

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### Introduction

Achievement of universal poverty reduction was one of the Millennium Development Goals, (MDGs 2000) which had a target of halving the proportion of people with income less than \$1 a day by 2015. Though enormous progress has been made in this regard, the reality is that 836 million people in the World still live with extreme poverty (UNO, 2015). In the post-2015, the MDGs has been transformed into SDGs or Global Goals with the adaptation of 17 Goals, 169 targets and 230 indicators. Eradication of poverty is the first and key target of SDGs in order to 'end poverty in all its form everywhere by 2030'. The extreme poverty rate has declined significantly over the last two decades and the UNO's data shows that in 1990 nearly half of the population in the developing world lived on less than \$1.25 a day, and this has dropped to 14% in 2015. Globally, the number of people living in extreme poverty has declined by more than half, falling from 1.9 billion in 1990 to 836 million in 2015; most of this progress has taken place since 2000 (UNO, 2015). China and India played a central role in the global reduction of poverty.

In view of inclusive, resilient and sustainable development, UNO has committed to free the World from the misery of poverty by 2030. Many member countries are also increasingly adopting the strategy of public works programs to tackle the growing unemployment and poverty (Abadie, 2005). India as a member of the UNO and signatory to the UNO Sustainable Development Summit in September 2015, has also adopted the SDGs 2030 as the guiding framework for her National Development Agenda till 2030 (Government of India, 2016). The country adopted a bunch of programmes to reduce unemployment and poverty from the country. It is needless to say that, for about seven decades of planned development the challenge of poverty reduction still remains a key policy concern for India. The first National Policy, viz., the Prime Minister Rozgar Yojana (PMRY) was announced on 15th August, 1993 with the objective of creating self-employment opportunities to the educated unemployed youth by assisting them by setting up any micro-level self-employment venture. So far about 20 lakh units have been set up under the PMRY,



### Objectives of Study

The major objectives of this study are

1. to assess the pattern of poverty in Md. Bazar C.D. Block on the light of SDGs 2030, Goal 1, target 1-A
2. to explore the causes of poverty in the study area and
3. to find out the alternative measures to solve the problem.

### The Study Area

Md. Bazar C. D. Block lies in the west-central part of Birbhum District, West Bengal between 23°52'40"N to 24°03'30"N latitudes and 87°31'30"E to 87°42'45"E longitudes. It has 12 Gram Panchayats (GP) and 138 Mouzas (Government of India, 2011). The Block is located 15 km north from Suri, the district headquarter of Birbhum and is about 50 km northwest from Santiniketan. The total population and household of the study area are 164,570 and 36,344 respectively. The block is bounded by Dumka district of Jharkhand on the west, by Rampurhat C.D. Block on the north, by Mayureswar -I C.D. Block on the east, by Suri-I C.D. Block on the south and southeast (Government of West Bengal, 2016).

### Materials and Methods

Both primary and secondary data have been used in the study. Primary data have been collected through a household survey by means of prepared questionnaires using stratified random sampling technique. About 40% of total households in each mouza have been selected for the study. Incidence of income poverty has been counted on the basis of the international poverty line, set by UNO, 2015 in which people living on less than \$1.25 a day. For calculating the income of the people it has been taken that, \$1 equal to Rs.68.4123, the annual average value of rupee against \$1 in 2018. To count the poor people, the method of Poverty headcount ratio (PHCR) has been followed. PHCR is the proportion of the people below the official poverty level, often denoted by  $P_0$ . Formally,

$$P_0 = \frac{N_p}{N}$$

Where  $N_p$  is the number of people below the poverty line and  $N$  is the total population (or sample).

Data regarding the socio-economic status of the people such as literacy rate, number of working people, unemployment ratio, dependency ratio, family size agricultural landholding size, and agricultural productivity, have also been collected from the field of inquiry. Secondary data have been collected from the District Statistical Hand Book, Birbhum (2016), District Census Hand Book, Birbhum- 2011 and available reports and other literature. The size of agricultural landholding, percentage of the working population, dependency ratio, unemployment ratio, literacy rate, female literacy rate, and crop productivity have been taken for assessing the determinants. To find the prime determinant, a principal component analysis has been calculated in past 3. To analyze the data, a correlation has been computed in MS Excel, 2007. Principal component and thematic maps have been prepared in past 3.0 and Map Info 7.0 respectively.

### Results and Findings

#### Level of Income

It is found that, income status of the people of Md. Bazar C. D.

Block is very poor. The average per day per capita income is only Rs.39.95 (\$ 0.5839). Out of the 12 GPs, it has been found highest in Varkata, Rs52.02 (\$ 0.7603) and lowest observed in Charicha, Rs. 25.29 (\$ 0.3696) only (Fig 1). The employment ratio of the block is only 25.55% and among the productive people, the majority belongs to the daily labour (38.86%). It has also been found that a large number of people are landless or near landless (Table -1). As many of the people are landless or near landless they are forced to accept the profession of daily labour. It can, therefore, be said that landless or near landless is an important cause of poverty in the rural area (Bardhan & Mukherjee, 2008; Nguyen, 2008 and Shrestha, 1997).

#### Pattern of Poverty

The poverty lies at the root of the society of Md. Bazar C.D. Block. Average PHCR is as high as 74.88%, which is about 6.99, 3.61 and 4.18 times higher than the PHCR of World (10.7%), India (20.74%) and West Bengal (17.92%) respectively. Income poverty in Md. Bazar C.D. Block has evidently been mixed across GPs. Bhutura has the highest (86.61%) PHCR, followed by Charicha (82.02%) and Puranagram (81.35%), Varkata is the village in which lowest PHCR (60.11%) has been found and unexpectedly it is also remarkably higher than the international (10.7%), national (20.74%) and state poverty (17.92%) level. (Table 1, Fig 2, Fig 3).

#### Employment Ratio and PHCR

It is observed that the employment ratio is only 25.55 and hence, dependency ratio is high (66.91). Percentage of daily labour has been found higher (38.86%), followed by farmer (34.56%), small businessman (6.99%), private sector employee (6.15%), government employee (3.97%), big businessman (3.06%) and the remaining are (6.38%) engaged in others occupation as carpenter, barber, washman private tutor etc. (Table -2). It is also observed that labourers are the lowest and government employee are the highest income group among the productive people (Fig. 4). Due to the lack of continuous work and low wages, per capita income of the daily labour and their family is low (Pradeep et al, 2017; Muthusami & Ibrahim, 2016). The second highest productive group is the farmer. But agricultural productivity of the block is not satisfactory. Poor irrigation facility and a relatively higher percentage of wasteland are the root causes of this (Halder & Sarkar, 2017) and it is the second important cause of low income of the people. As the number of daily labourer is the highest among the working people, the correlation between daily labour and PHCR has been calculated to be positive ( $r = 0.40$ ) (Fig 6). It is also found that, while the employment ratio is high, the poverty rate is low and vice versa. Correlation between employment ratio and PHCR has been calculated to be highly negative ( $r = -0.61$ ) (Fig 5). So unemployment plays a vital role as a causal factor for the misery (Karani, 2011; Sundaram, 2007; Gregory & Sheehan, 1998; Sen, 1996).

#### Dependency Ratio Ratio and PHCR

The dependency ratio in Md. Bazar C.D. Block has been found to be high (66.91). In fact, it is the highest in Puranagram (74.48) and lowest in Varkata (55.53). The correlation has been calculated between the variables and the result is seen as



negative ( $r=0.71$ ).

### Literacy rate and PHCR

Literacy rate of the study area is 71.13% but female literacy rate (66.28%) is lower than the total literacy rate (Table - 1). Correlation between both total and female literacy rate and PHCR has been calculated. The result is found to be negative ( $r = -0.39$  and  $r = -0.29$  respectively) in both the cases (Fig 8 & 9).

### Factors of Poverty

Dependency ratio and unemployment ratio have been found to be the prime determinants in the first phase loading with eigenvalue of 2.575 and 36.363 explained variance. Family size is the dominant determinant of second phase loading with eigenvalue of 1.560 and 22.287 explained variance. In the third phase, holding the size of agriculture land with eigenvalue 1.010 and 14.433 explained variance (Table - 3). Therefore, high dependency and unemployment ratio are the prime factors of poverty which has been established through this study.

### Conclusion and Recommendations

The aforesaid analysis has revealed that the problem of poverty is very severe in the study area and high unemployment and dependency ratio are the root causes of the misery as the variables have a negative impact on the problem. Among others, smaller size of agricultural landholdings and large family size have exerted significant influence on poverty. It can be argued that, as there is a strong negative correlation with the number of working people and number of daily labour as the profession with the PHCR, they are the paramount factors of poverty. Hence, it is fair to say that, due to the high unemployment ratio and a higher percentage of daily labour as working people, daily per capita income is low or below the official international poverty line.

For the eradication of poverty in order to save the people from malnourishment within 2030, earning of the people should be increased by improving or solving the drawback. As most of the people are unemployed, the government should take an ameliorative step for productive and decent work for all, including women. It is also be noted that, as most of the people are landless or near landless and agricultural landholding size is very small, non-agro based activities will be suitable for the people. As the block is enriched with black stone and china clay (Wadia, 1966), installation of these resource-based industry may solve the problem of unemployment of the region. Secondly to reduce the family size, fruitful family planning efforts from the Government authority should also be needed.

### References

1. Abadie, A. (2005), Semiparametric Difference-in-Differences Estimators, *The Review of Economic Studies*, 72(1), pp 1-19
2. Acharya, S. (2004), Measuring and Analyzing Poverty, *The European Journal of Comparative Economics*, 1(2), 195-215,
3. Alkire, S., (2011), *Multidimensional Poverty and Its Discontents*, Oxford Poverty & Human Development Initiative, Oxford Department of International Development, Queen Elizabeth House, University of Oxford, OPHI Working Paper No. 46
4. Bardhan, P. & D. Mookherjee. (2006). "Land Reform, Decentralized Governance, and Rural Development in West Bengal." Stanford, CA: Paper prepared for the Stanford Center for International Development Conference on Challenges of Economic Policy Reform in Asia, May 31-June 3, 2006.
5. Breikreuz, R., Stanton, C.J., Brady, N., Williams, J.P., King, E.D., Mishra, C., & Swallowet, B., (2017), *The Mahatma Gandhi National Rural Employment Guarantee Scheme: A Policy Solution to Rural Poverty in India?* *Development Policy Review*, 2017, 35 (3), 397-417
6. Forster, M.F., Tarcali, G., & Till, M., (2004), *Income and non-income poverty in Europe, What is the minimum acceptable standard in an enlarged European Union?* Presented at the 27th General Conference of the International Association for Research in Income and Wealth, Djurhamn (Stockholm Archipelago), Sweden, 18 to 24 August 2002.
7. Government of India, (2015), *Millennium Development Goal India Country Report 2014*, Central Statistics Office, Ministry of Statistics and Programme Implementation, Wing-6, West Block-8, R. K. Puram, New Delhi
8. Govt. of India (2015), *Millennium Development Goals India Country Report 2015*, Central Statistics Office, Ministry of Statistics and Programme Implementation, Wing-6, West Block-8, R. K. Puram, New Delhi
9. Government of India, Planning Commission, (2014), *Report of the Expert Group to review the Methodology for Measurement of Poverty*, Yojana Bhawan, Sansad Marg, New Delhi
10. Government of India (2011), *District Census Hand Book, Birbhum, 2011*, Office of the Registrar General & Census Commissioner, Ministry of Home Affairs, New Delhi
11. Government of India, (2010), *Report on Convergence Initiatives in India, An Overview*, Ministry of Rural Development, New Delhi
12. Government of West Bengal, (2016), *District Statistical Hand Book, Birbhum*, Department of Planning & Statistics, Joint Administrative Building, HC-7, Sector - III, Salt Lake, Kolkata
13. Gregory, R. G. & P. Sheehan (1998), *Poverty and the collapse of full employment*, in R. Fincher and J. Niewenhuysen, Australian Poverty: Then and Now, Melbourne University Press, Melbourne, 052284829X, ISBN 9780522848298, pp 103-26
14. Halder, S. & Sarkar, S. (2017), *A critical analysis on block wise status of agricultural productivity and efficiency: A case study on Birbhum district, West Bengal*, *International Journal of Multidisciplinary Research and Development*, 3(1), pp 341-345\
15. Joshi, M.C. & Rajpurohit, V.P., (2016), *Awareness of Financial Inclusion: An Empirical Study*, *International Journal of Multidisciplinary*, 1(6), pp 1-6
16. Karani, A. (2011), *Reducing Poverty through Employment*, Palgrave Macmillan, New York, 6(2), pp 73-97
17. Krishna, R. & Kumar, S. (2016), *Unemployment and Poverty Paradox in India*, *Journal on Contemporary Issues of Law*, 2(10) pp 1-13
18. Kumari, L., (2014), *Poverty Eradication in India: A Study of National Policies, Plans and Programmes*, *Journal of Arts, Science & Commerce*, 4(2), pp 68-80





19. Nguyen, C. (2008), The Impact of Agricultural Land on Poverty and Inequality in Rural Vietnam, MPRA Paper No. 50478, University Library of Munich, Germany
20. Muthusami, A. & Dr. Ibrahim M. S. (2016), Problems Faced by Informal Workers in Different Sectors in India, 2. Indian Journal of Applied Research, 6(4), pp 37-40
21. Nguyen, C. (2008), The Impact of Agricultural Land on Poverty and Inequality in Rural Vietnam, MPRA Paper No. 50478, University Library of Munich, Germany
22. Pradeep, M.D., Ravindra, B.K. & Ramjani Sab T. (2017), A Study on the Prospects and Problems of Unorganised Labours in India, International Journal of Applied and Advanced Scientific Research, 2(1), pp 94-100
23. Sen, A. (1996): 'Economic Reforms, Employment, and Poverty: Trends and Options, Economic and Political Weekly, 31(35-36-37),
24. Shrestha, N.R. (1997). On what causes poverty? : A postmodern view or denial of historical integrity? The poverty of Yapa's view of poverty, Taylor & Francis, Ltd, 87(4), pp. 709-716
25. Sreedhar, M (2015), Poverty Alleviation Programmes in India, International Journal of Science and Research, ISSN(Online): 2319-7064
26. Sundaram, K. (2007), Employment and Poverty in India, 2000-2005, Economic and Political Weekly, 42(30), pp 3121-3131
27. United Nation Organization (2015), Report of Sustainable Development Goals 2030
28. United Nation Organization (2015) India and the MDGs, Towards a Sustainable future for all.
29. United Nations (2015) Transforming Our World: The 2030 Agenda for Sustainable Development
30. United Nation Organization (2015) General Assembly (69 the Session), United Nations. Draft Outcome Document of the UN Summit for the Adoption of the Post-2015 Development Agenda. New York, USA
31. United Nation Organization (2015) Sustainable Development Summit. Transforming Our World for People and Planet- Overview,
32. UNDP (2014), Human Development Report, New York
33. Wadia, D. N. (1966), Minerals in India, National Book Trust, New Delhi

Table - 1: Poverty Head Count Ratio

	1990	1993-1994	1999-2000	2004-2005	2011-2012	2015	SDGs Target in 2030 (%)
World	35.00	33.50	28.1	20.40	13.50	10.70	0
India	47.80	45.30	-	37.20	21.9	20.74	0
West Bengal	-	35.66	-	24.70	19.98	17.92	0
Birbhum	-	-	27.02	-	27.70	-	0

Sources: UNO (2015), World Bank (2015), Government of India (2015)

Table - 2: Socio-economic Factors and PHCR

Mouza	Average PDPC Income	PHCR (%)	Literacy Rate (%)	Female Literacy (%)	Employment Ratio	Dependency Ratio	Family Size	Landless/ Near Landless (%)
Angargaria	42.12	76.72	71.34	59.35	25.27	64.44	3.18	37.25
Bhutura	37.72	86.61	55.17	49.82	19.89	68.49	4.41	41.52
Charicha	33.39	82.02	63.69	57.93	24.59	71.46	3.80	47.64
Deucha	46.43	77.90	89.15	81.90	26.12	65.42	3.41	31.29
Gonpur	51.54	75.85	59.53	52.94	28.59	64.42	3.61	33.59
Hinglow	47.87	70.70	62.83	61.72	24.74	65.38	3.71	30.47
Kapista	43.81	69.14	53.90	50.70	26.58	67.33	3.84	39.47
Md. Bazar	56.11	76.57	76.79	64.58	26.24	68.32	3.92	31.78
Puranagram	38.21	81.35	78.37	90.38	20.48	74.48	3.21	40.46
Rampur	35.21	64.65	89.55	90.00	22.84	65.32	3.15	36.26
Sekedda	34.05	76.96	67.5635	60.76	27.95	72.33	3.75	42.91
Varkata	52.02	60.11	85.64	75.25	33.27	55.53	3.88	43.35
Average	39.95	74.88	71.13	66.28	25.55	66.91	3.65	37.99

Source: Field Survey and computed by Authors, 2018



Table - 3: Distribution of Working Population by Employment Status

Mouza	Daily Wagers	Farmers	Small Traders	Big Traders	Private Employee	Government Employee	Others (%)
Angargaria	47.64	31.19	7.54	2.41	2.89	2.54	5.79
Bhutura	42.33	31.25	6.43	1.95	6.66	2.95	8.43
Charicha	40.74	41.17	5.71	1.32	1.85	4.46	4.75
Deucha	39.00	38.82	9.61	2.05	2.63	2.63	5.26
Gonpur	32.63	38.67	8.06	3.58	6.76	5.49	4.81
Hinglow	37.43	35.46	7.46	1.57	5.39	3.12	9.57
Kapista	40.87	34.91	5.47	3.75	6.25	3.12	5.63
Md. Bazar	39.13	28.04	8.69	3.49	8.79	5.67	6.19
Puranagram	38.57	35.83	4.83	3.67	5.67	4.68	6.75
Rampur	33.57	40.96	9.09	2.76	4.54	4.54	4.54
Sekedda	40.73	29.76	5.88	4.61	5.88	5.88	7.26
Varkata	33.76	28.75	5.13	5.64	16.54	2.56	7.62
Total	38.86	34.56	6.99	3.06	6.15	3.97	6.38

Source: Field Survey and computed by Authors, 2018

Table - 4: Factors Analysis of Poverty through PCA

	PC 1	PC 2	PC 3
Agricultural Land Holding Size (Bigha)	0.371	0.219	<b>0.660</b>
Working Population (%)	0.410	-0.333	0.155
Dependency Ratio	<b>-0.486</b>	0.248	-0.039
Unemployment Ratio	<b>-0.485</b>	0.156	0.118
Family Size	0.111	<b>0.691</b>	0.274
Literacy Rate (%)	0.239	0.507	-0.436
Female Literacy Rate (%)	0.389	0.137	-0.508
Eigenvalue	2.545	1.560	1.010
% Variance	36.363	22.287	14.433

Source: Computed by Authors, 2018

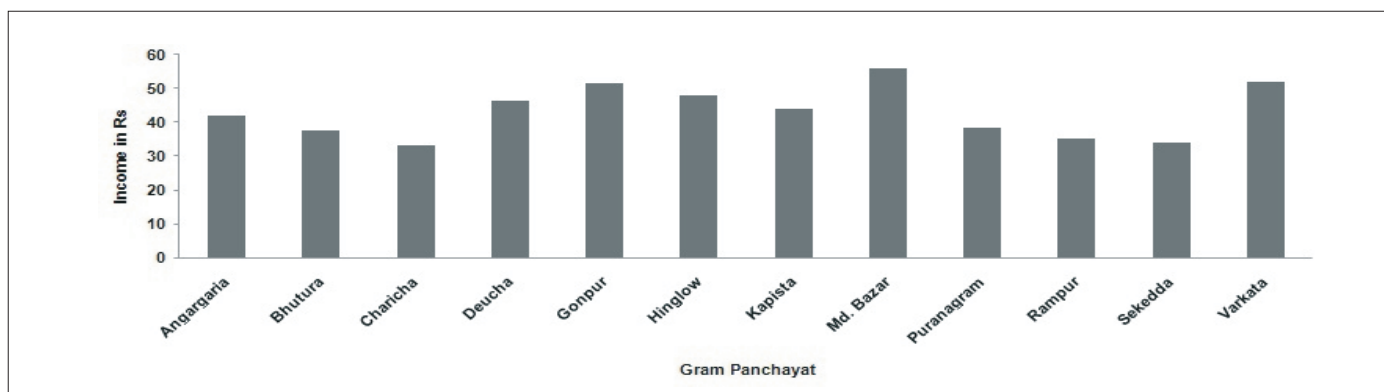


Fig. 1: Level of Income of the People, Md. Bazar C.D. Block, 2018

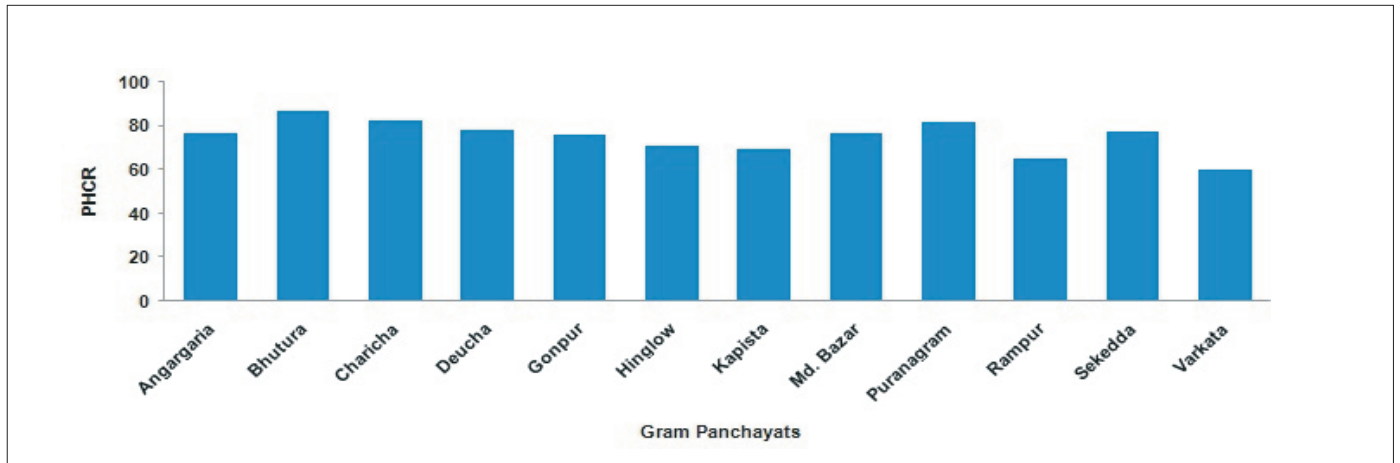


Fig. 2: PHCR in Md. Bazar C.D. Block, 2018

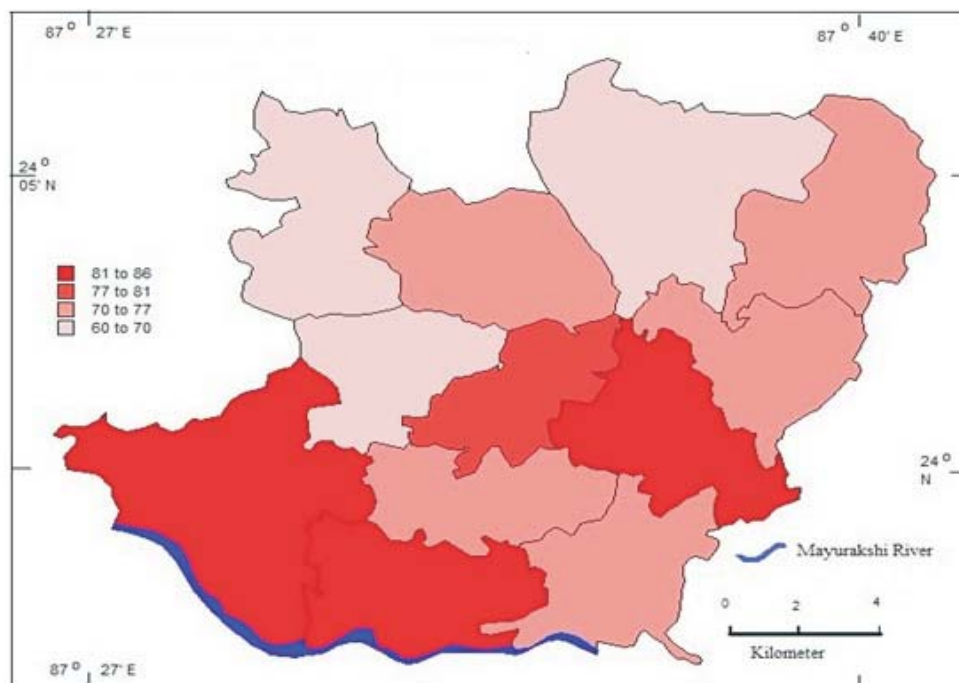


Fig. 3: Spatial Pattern of PHCR in Md. Bazar C.D. Block, 2018



Fig. 4: Level of Income of the People with respect to the Profession

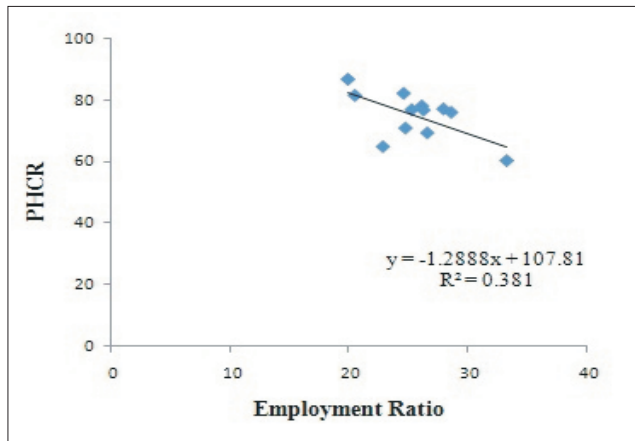


Fig. 5: Relation between Employment Ratio and PHCR

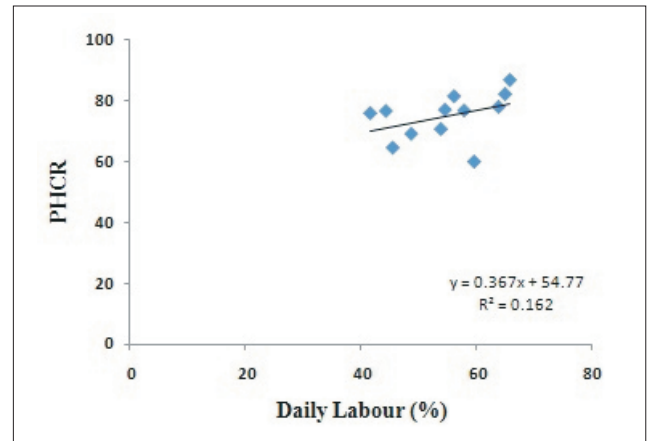


Fig. 6: Relation between Daily Labour and PHCR

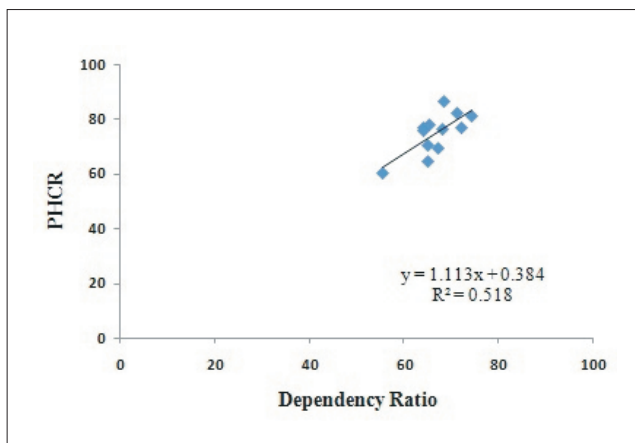


Fig. 7: Relation between Dependency Ratio and PHCR

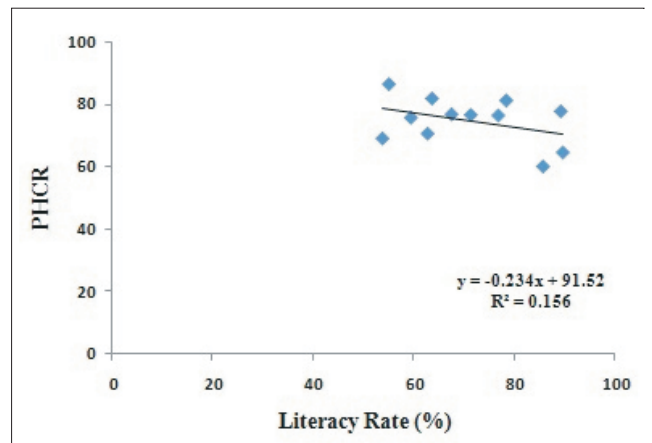


Fig. 8: Relation between Literacy Rate and PHCR

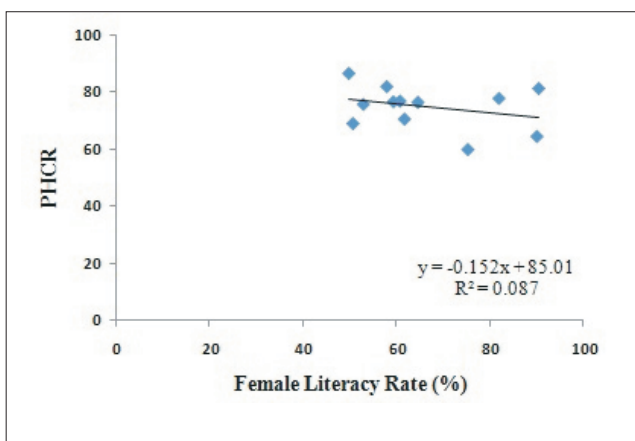


Fig. 9: Relation between Female Literacy Rate and PHCR



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