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RESEARCH ARTICLE

LEVEL OF SOCIAL WELL-BEING IN COMMUNITY DEVELOPMENT BLOCKS OF PASCHIM MEDINIPUR DISTRICT

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ABSTRACT

Social well-being is the degree to which the requirement and demands of an individual being met. The Phenomenon of social well-being is an aggregation of an individual's level of welfare, which includes the aspects like physical, material, social economic perception and spiritual well-being. Paschim Medinipur district is one of the backward regions in West Bengal. It has 29 Community Development Blocks and 8 municipalities. The specific objective of the present study is to analyze the level of social well-being of Paschim Medinipur district, C.D Block-wise as per 2011 Census. The Present Study is entirely based on secondary sources of data. The secondary data are collected from District Census Handbook of Paschim Medinipur district, 2011; Houselisting and Housing Census in India, West Bengal, 2011 and District Statistical Handbook of Paschim Medinipur, 2014. Different statistical techniques like Z-Score, Composite Score, Kendall's Ranking Method, Simple Percentage Calculation, Rate, Ratio are also applied here to measure the quality of well-being of rural blocks in Paschim Medinipur district.

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INTRODUCTION

Social well-being is the degree to which the requirement and demands of an individual being met. Social well-being is a multi-faceted phenomenon, which means welfare in general and health prosperity in particular. The phenomenon of social well-being is an aggregation of an individual's level of welfare, which includes the aspects like physical, material, social, economic perception, and spiritual well-being (Smith, 1977). The term well-being includes the various terms such as level of living, quality of living, social welfare, and the level of satisfaction (Sen, 2007). The other concept, such as freedom and happiness are frequently related to measuring the quality of life or well-being that an individual and society experiences. Much work on happiness shows that people may be more content and live more comfortable life with higher income, but they do not feel any happiness (Layard, 2005).

OBJECTIVES

-) To analyze the internal variation of indicators across the C.D blocks of Paschim Medinipur district, 2011.
-) To explore the level of social well-being across the blocks of Paschim Medinipur district.

-) To access the disparity in level of social well-being across the blocks of Paschim Medinipur district.

DATABASE AND METHODOLOGY

The present study is entirely based on secondary sources of data. The secondary data are collected from District Census Handbook of Paschim Medinipur district, 2011 (electronic format); Houselisting and Housing Census in India, West Bengal, 2011 (electronic format); Socio-economic and Caste Census of India, West Bengal, 2011 (electronic format); District Statistical Handbook of Paschim Medinipur district, 2014. Different statistical techniques like Z-Score, Composite Score, Co-efficient of Variation, Kendall's Ranking Method, and Simple Percentage Calculations are applied here to measure the quality of well-being of Community Development Blocks of Paschim Medinipur district. The formulas of statistical techniques are as follows:

Coefficient of Variation (CV):To calculate the internal variation of each variable across the blocks of Paschim Medinipur district, the following formula has been used:

$$\text{Coefficient of Variation (CV)} = \frac{\sigma}{\bar{x}} \times 100$$

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Where, ' σ ' and ' \bar{x} ' are the value of standard deviation and mean of the concerned indicator.

$$\mathbf{Z\text{-Score and Composite Index: } Z - S_i = \frac{x - \bar{x}}{s.d}}$$

Where, Z_{ij} = Standard value of the variable i in block j . x_{ij} - the Actual value of the variable i in block j . ' \bar{x} ' = Mean value of the variable i in all blocks, $s.d$ = Standard deviation of the variable i in all blocks. The block-wise Z-Scores of all variables under each indicator of social well-being have been added and the averages have been taken out for these indicators, which may be called as Composite Score (CS) for each block. It may be expressed as:

$$C_i = \frac{\sum Z_{ij}}{N}$$

Where, $\sum Z_{ij}$ = Total of the Z-Scores of all variables under each indicator for each block, N = Number of variables. The high value of Composite Score denotes the high level of social well-being and lower value denotes the low level of social well-being.

$$\mathbf{Kendall's Ranking Method: } I_i = \sum_{i=1}^n R$$

Where, R_{ij} = Rank of the Composite Scores of i indicator in the j^{th} blocks, n = the number of selected indicators.

Following indicators have been taken to access the level of social well-being in 29 blocks of Paschim Medinipur district.

Demographic Indicators

-) The decadal growth rate of population (2001-11) in rural C.D blocks.
-) Population Density in the C.D blocks, 2011.
-) Sex Ratio in C.D blocks, 2011.

Economic Indicators

-) Work Participation Rate in C.D blocks, 2011.
-) Percentage of female workers in C.D blocks, 2011.
-) Percentage of BPL families in C.D blocks, 2011.

Educational Indicators

-) Literacy Rate in C.D blocks, 2011.
-) Student-teacher Ratio in primary school, C.D blocks, 2014.
-) Student-teacher Ratio in high school in C.D blocks, 2014.

Household Amenities Indicators

- ∩ Percentage of households with good housing condition of Census houses in C.D blocks, 2011.
- ∩ Percentage of households with electricity as main lighting source, C.D blocks-wise, 2011.
- ∩ Percentage of households with tap water from treated sources as drinking water, C.D blocks-wise 2011.

Households with Assets Indicators

-) Percentage of households with the availability of television, C.D block-wise, 2011.

-) Percentage of households with computer/Laptop with an internet connection, C.D block-wise, 2011.
-) Percentage of households with scooters/ motorcycle/ moped as transport facilities, C.D block-wise, 2011.

Miscellaneous Indicators

- ∩ Number of population served per Bank, Office (commercial and Gramin) in C.D-blocks, 2014.
- ∩ Number of Primary Health Centers and Primary Health Sub-Centers in C.D blocks, 2014.
- ∩ Number of Community Centers/ Recreation Centers/ Sports club etc. in C.D block, 2014.

STUDY AREA

Paschim Medinipur, located in the southern part of West Bengal, has been carved from the erstwhile Medinipur district, the then largest district of India and came into existence in the Present form from 1st January 2002. It is bounded by Bankura district from the northern side and Purba Medinipur district from the Southeastern side. The southern boundary of the district is merged with Balasore and Mayurbhanj district of Odisha and Western boundary is merged with Singhbhum and east district of Jharkhand. The district falls under the southernmost district of Bardhaman Division of West Bengal and it is situated between 21°36'35" N to 22°57'40" N latitude and between 86°33'30" E to 88°12'40" E longitude. The district comprises four sub-divisions: a. Kharagpur, b. Medinipur, c. Ghatal, Jhargram

Kharagpur Sub-Division is divided into Ten Blocks and One Municipality

-) Kharagpur (M),
-) Kharagpur-I,
-) Kharagpur-II,
-) Debra,
-) Pingla,
-) Sabang,
-) Narayangarh,
-) Dantan-I,
-) Dantan-II,
-) Mohanpur
-) Keshiary

Medinipur Sadar Sub-Division Consists of One Municipality and Six Community Development Blocks

These are: i. One municipality: Midnapur, ii. Medinipur Sadar Community Development Block, iii. Garbeta-I, iv. Garbeta-II, v. Garbeta-III, vi. Keshpur, vii. Salboni.

Ghatal Sub-Division Consists of Five Municipalities and Five Community Development Blocks

- i. Five municipalities: Ramjibanpur, Chandrakona, Khirpai, Kharar and Ghatal
- ii. Chandrakona-I, iii. Chandrakona-II, iv. Daspur-I, v. Daspur-II, vi. Ghatal.

Jhargram Sub-Division Consists of One Municipality and Eight Community Development Blocks:

-) Jhargram (M),
-) Binpur-I,
-) Binpur-II,

-) Jamboni,
-) Jhargram,
-) Gopiballavpur-I,
-) Gopiballavpur-II,
-) Nayagram,
-) Sankrail

RESULTS AND DISCUSSION

Social well-being includes different dimensions like demographic, social, economic, environmental well-being. In Paschim Medinipur district, there is 29 C.D blocks. Among them, decadal growth rate is highest in Medinipur Sadar (21.37%) and lowest in Kharagpur-I (8.77%). The internal variation is 76.18%. The sex ratio is highest in Binpur-II C.D block (990) and lowest in Ghatal (940) C.D block. The regional imbalance is very low in this respect with 1.47% CV value. The population density is highest in Daspur-II and lowest in Nayagram block with 1442 persons/sq.km and 284 persons/sq.km. The internal variation of population density among the blocks is 42.71%. Therefore, among the three variables of demographic profile in regional imbalance is high in decadal growth rate (2001-2011) among the C.D blocks (Referring back, Figure-2).

In Case of economic well-being, three indicators have been selected viz. the female workers and percentage of BPL families. The work participation rate is highest in Sabang (59.22%) and lowest in Mohonpur block (34.25%). The internal variation is low 11.91%. The percentage of female workers is highest in Sabang (52.77%) and lowest in Mohonpur block (8.51%). Here, the internal variation is high i.e. 37.09%. The share of BPL family is highest in Binpur-II block (87.42%) and lowest in Daspur-II (65.03%). The internal variation is very low than the previous two with 7.26% CV value (Referring back, Figure-2). Under educational well-being, the literacy rate is highest in 86.84% and lowest in Nayagram with 63.7% literacy rate. The regional imbalance is low with 7.53% CV value. The student-teacher ratio in Primary school should be 30 students/teacher. Among the 29 blocks, the student-teacher ratio is highest in Kharagpur-I (30.83) and lowest in Kharagpur-II block (20.93). The internal variation is 10.65%. The student-teacher ratio in high school is highest in Medinipur (111.25) and lowest in Keshiary (36.35). The internal variation is 30.95%. The student teacher ratio in high school level should be 40 students/1 no of teacher (Referring back, Figure-2). The indicator of household amenities comprises three variables viz. households in good condition, households with electricity, and households with safe drinking water (tap water from treated sources). In this case, the composite score is highest in Daspur-II and lowest in Nayagram. The variables are when separately considered; it is observed that the share of households with good conditions is highest in Daspur-II (47.7%) and lowest in Binpur-II block (26.1%). In this case, the internal variation among the blocks is 16.39%. Daspur-II accounts highest 72.80% households with electricity connection whereas Nayagram accounts 29.1% households with electricity connection. The regional imbalances are also low in this case i.e. the CV value is 24.62%. Among the three variables, the internal variation is very high in case of households having availability of tap water from treated sources, because the CV value is 100.77%. In Garbeta-III, 32.2% households have the availability of tap water from treated sources, which is highest. On the other hand, only 0.8% households avail tap water from treated

sources in Dantan-II block (Referring back, Figure-2). The availability of household assets indicator includes the variables viz. households with television, computer/laptop with internet connection and scooter/motorcycle/moped for transport and communication facilities. Here, Keshpur has recorded high level of availability of assets for transport and communication with 1.60 composite score. On the other hand, Kharagpur-I accounts lowest composite score (-0.95) in respect of availability of housing assets. Among the household assets, the internal variation is tremendously high in case of availability of computer/laptop with internet connection with 398.59% CV value which is followed by HHs with the accessibility of television (CV 40.63%) and HHs with the accessibility of scooters/motorcycles/moped (CV 33.39%). The HHs with television is highest in Daspur-II (36.70%) and lowest in Nayagram (6.6%). The availability of computer/laptop with internet connection is highest in Ghatal block (24.10% HHs) and lowest in five numbers of blocks. Binpur-I and Binpur-II, Gopiballavpur-II, Nayagram and Sankrail. Lastly, Kharagpur-I accounts 15.3% HHs having scooter /motorcycle/moped as transport vehicle and Binpur-II have lowest share of HHs having scooter/ motorcycle/moped (3.81%) as transport vehicle (Referring back, Figure-2).

The miscellaneous indicator also comprises three variables viz. population served per bank office (Commercial and Gramin), number of community centre/recreation centre / sports club, and number of primary health centers and sub-centers. In this case, the composite is highest in Keshpur (CS 1.41) and lowest in Kharagpur-I (CS -0.95). Under this indicator, the regional imbalance is high in accessibility of community center/recreation center/sports club (CV 55.83%), followed by population served by per bank office (CV 35.37%). The number of primary health centers and sub-centers is highest in Keshpur (83) and lowest in Nayagram (22). The number of community center/recreation center/sports club is highest in Kharagpur-II (556) lowest in Sankrail (26). The Dantan-II has recorded highest position in terms of population served by per bank office (3143 population/bank) and Kharagpur-I ranks lowest position with only 155 population/bank (Referring back, Figure-2). In the table.1, the disparity in social well-being of all 29 blocks has been shown using the Kendall's Ranking Method. The composite score of 29 blocks of each six indicators has been ranked separately. Thus, every block have six ranks one for each indicator. The sums of the six ranks of a block give the composite scores reflecting the social well-being of the block. The block having highest composite score under each indicator, has been assigned the 2nd rank and so on. After ranking the blocks for each indicator, these ranks are added row-wise. Thus, the composite score of ranks given in the last column show the overall social well-being of all the 29 blocks of these six indicators. The composite score (the grand total of the ranking) of the blocks are classified into five groups and plotted on a map to show the spatial disparity in social well-being of the 29 no. of C.D blocks. According to this exercise, it is observed that the social well-being is very high in Keshpur block because the value of the total rank (composite score) is least. The level of social well-being is very low in Jamboni block because its composite value is high (126.5). After grouping the total composite score of the blocks, it is shown that only three blocks viz. Daspur-II, Keshpur, and Debra have been experienced high level of social well-being and only two numbers of blocks have experienced very low level of social well-being. Out of 29 blocks, eleven numbers of blocks have high level of social well-being.

LOCATION MAP OF PASCHIM MEDINIPUR DISTRICT

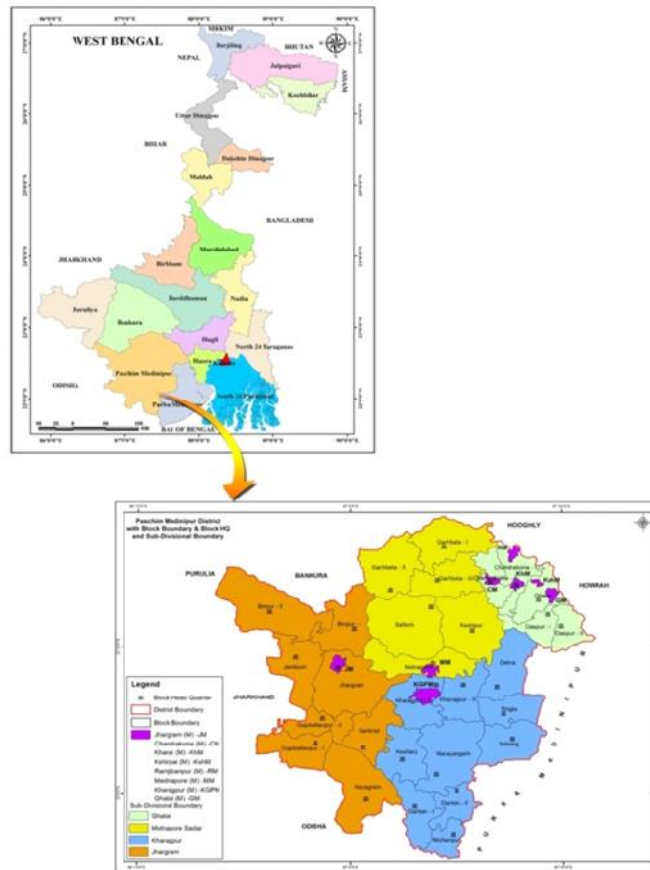


Figure 1. Location Map of Paschim Medinipur District

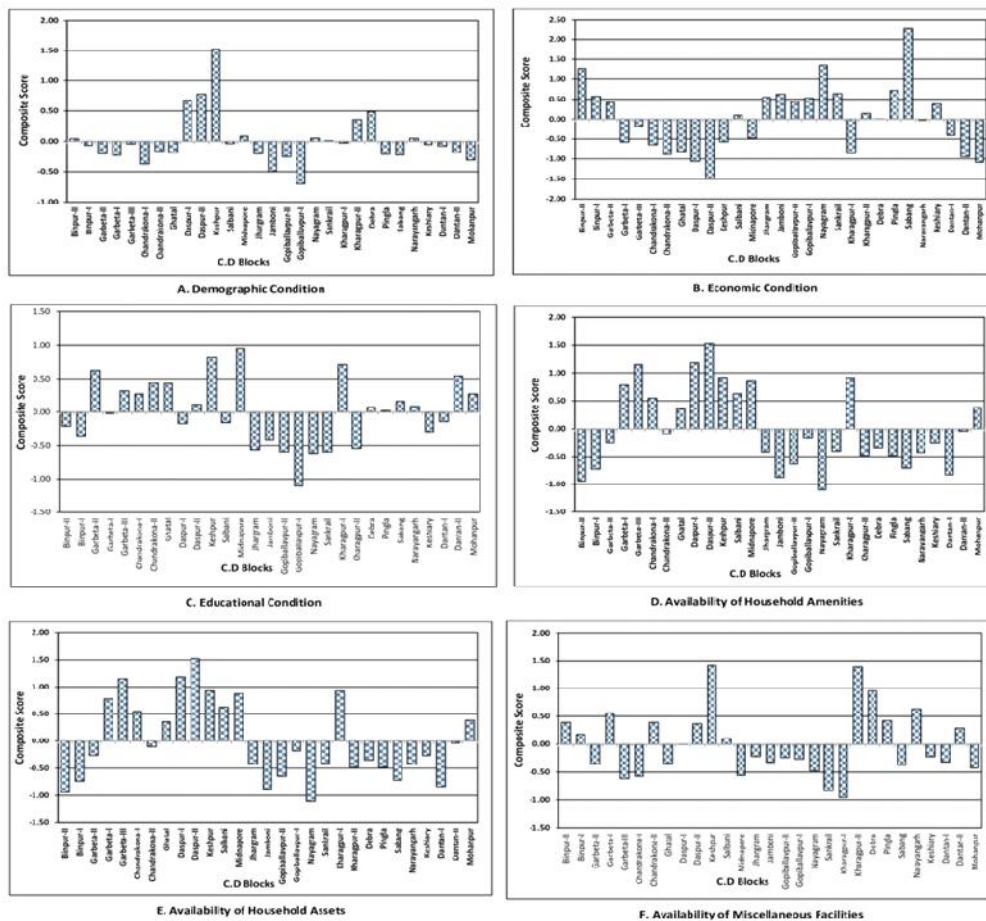


Figure 2. Paschim Medinipur District: Level of Social Well-Being in C.D Blocks, Indicator-wise

Table 1. Composite Index of the Overall Social Well-Being of Paschim Medinipur District, C.D Block-wise (Kendall's Ranking Method)

Sl. No	Towns/Cities	Ranks of Well-beings						
		Demography	Economic	Education	Housing Amenities	Housing Assets	Miscellaneous	Total
1.	Binpur-II	9	3	20	28	29	7.5	96.5
2.	Binpur-I	15	7	22	25	26	11	106
3.	Garbeta-II	21	11	4	15.5	9	21	81.5
4.	Garbeta-I	23.5	20.5	16	7	5	5	77
5.	Garbeta-III	12.5	17	8	3	6	27	73.5
6.	Chandrakona-I	27	22	9.5	9	11	26	104.5
7.	Chandrakona-II	17	25	6.5	13	10	7.5	79
8.	Ghatal	18.5	23	6.5	11	1	20	80
9.	Daspur-I	3	27	19	2	2	13	66
10.	Daspur-II	2	29	12	1	4	9	57
11.	Keshpur	1	20.5	2	4.5	14	1	43
12.	Salbani	12.5	14	18	8	7	12	71.5
13.	Midnapore	6	19	1	6	12	25	69
14.	Jhargram	21	8	25	19.5	16	14.5	104
15.	Jamboni	28	6	23	27	24	18.5	126.5
16.	Gopiballavpur-II	25	10	26	23	25	16	125
17.	Gopiballavpur-I	29	9	29	14	23	17	121
18.	Nayagram	7.5	2	28	29	28	24	118.5
19.	Sankrail	10	5	27	18	21.5	28	109.5
20.	Kharagpur-I	11	24	3	4.5	3	29	74.5
21.	Kharagpur-II	5	13	24	21.5	13	2	78.5
22.	Debra	4	15	14	17	8	3	61
23.	Pingla	21	4	15	21.5	17	6	84.5
24.	Sabnag	23.5	1	11	24	27	22	108
25.	Narayangarh	7.5	16	13	19.5	15	4	75
26.	Keshiary	14	12	21	15.5	19.5	14.5	96.5
27.	Dantan-I	16	18	17	26	21.5	18.5	117
28.	Dantan-II	18.5	26	5	12	18	10	89.5
29.	Mohanpur	26	28	9.5	10	19.5	23	116

Source: Calculated by the Author

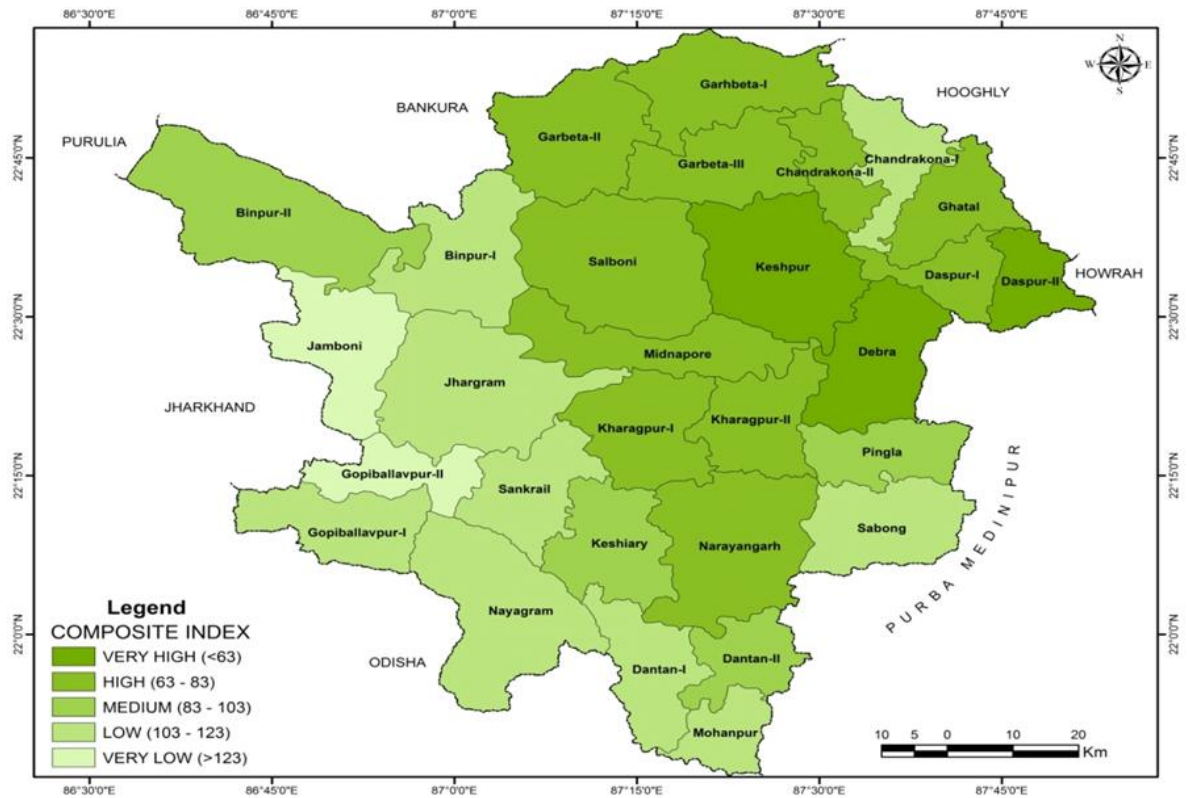


Figure 3. Composite Index of the Overall Social Well-Being of Paschim Medinipur District, C.D Block-wise (Kendall's Ranking Method)

CONCLUSION

Out of 29 blocks, almost 11 blocks accounts low to very low level of social well-being and most of them are under Jungal Mahal Area and Paschimanchal Unnayan Parshad (PUP) Area. Therefore, these blocks are characterized by remote and inaccessible location, socio-economic backwardness, prevalence of deep forest cover, lack of employment, educational and basic infrastructural facilities and services etc. On the other hand, out of 29 blocks, 14 blocks are experiencing high to very high level of social well-being, they are not Jungal Mahal Area, and much developed blocks than the eleven no. of most backward blocks. Hence, the level of social well-being is higher than the other.

GLOSSARY OF ABBREVIATIONS

BPL: Below Poverty Line

C.D Block: Community Development Block

C.S: Composite Score

C.V: Coefficient of Variation

HHs: Households

PUP: Paschimanchal Unnayan Parshad

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