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Research Paper

Geography

Recent Change in Child Population and Child Sex Ratio Age Group (0-6 Years) in South Bihar Plain

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ABSTRACT

South Bihar plain is a part of middle Ganga plain. It consists of four divisions . i.e., Patna, Magadh, Munger and Bhagalpur.

It has large area under alluvial plain, besides a small hilly tract. South bihar plain is famous for his glorious history. The present study aims to analyse the recent spatial and temporal variations in the child population and sex ratio in age group (0-6) years. The study is mainly based on the use of secondary data. Which has been collected from the census of India 2011 and 2001 (Provisional population totals Bihar Series.11). It shows that the growth rate of child population (0-6 years) in last decade is 17% percent. In this period out of seventeen districts of south Bihar plain. Eight districts records negative growth in child sex ratio Spatial distribution of CSR also varies in different districts. Negative growth in child sex ratio Indicates son foeticide in the society. Health facilities like PNDT techniques for sex determination also playing an important role to decreases in child sex ratio.

KEYWORDS : Child sex ratio, population Structure, Spatio-temporal analysis, Female foeticide and Son preference

Introduction :

A Study of the structure and characteristics of population is an important aspect of the study of population. As pointed out earlier, the study of population. Among other things, attempts to answer the question: What kind of people are found in any given population and how do those is one grow differ from there in another ? (Thompson) A population may be distributed into sub groups. accorder to each of the foregoing characteristics. For instance when sex is considered, the entire population may be classified into two groups: males and females, when religion is considered, the population may be divided into different religious groups. The study of population structure and characteristics Thus related to the distribution of one or more of these characteristics or attributes within a population. Several interesting questions may be answered as a result of this type of analysis, for example : What is the population distribution of males and females in a given population ? How are children ? What percentage of a population is Illiterate ?

It is, of course, not enough only to study the structure and characteristics of any population. It is necessary to seek explanations for any change which may have occurred. For instance, that the population of Children below the age of six years has decreased in a certain population, any student of the population studies would definitely want to investigate the regions for this change. At the same time, he would ponder over its demographic social and economic consequences.

Sex and age are also very important because they are the "visible indisputable and convenient indicators of social status" (R. Tomlinson) Each individual is ascribed a certain status in society on the basis of sex and age. For the study of sex structure of any population, the following two measures are generally adopted (a) the percentage of males in the population and (b) the sex ratio of these two measures, the later is more frequently used in the study of population.

It must be noted that there is no 1:1 correspondence in the male and female births; The number of male babies always slightly higher. An examination of the sex ratio of registered births for a large number of countries over a wide range of periods indicated that the sex ratio of birth is above 100 for nearly all countries for which complete data are available (P.M. visaria). It is generally around 105; that is 105 male babies per 100 female babies. But it records decreasing trends in developing countries when we compair the sex ratio in child population in 0-6 years age group.

Present study is related to change in child population (0-6 years) and sex ratio in south Bihar plain. In last decade. In the period of time, study is also aims at finding out and measuring change in child population and sex ratio.

Child sex ratio has been defined as the number of females in age group 0-6 years per 1000 males in the same age group in the population. "Children age (0-6) years per 1000 male children age (0-6) years."

Child sex ratio (0-6 years)

$$= \frac{\text{number of female children (0-6 age group)}}{\text{Number of male children (0-6 age group)}} \times 1000$$

Objective and methodology :

The present study is related to spatial temporal variations in child population age group (0-6 years) in south Bihar plain. In last decade. In due course of time the child sex ratio records negative growth. So the objective of the study is to analyse the major factors which have brought change in the child population and child sex ratio.

Our study is mainly based on the use of secondary data which has been collected from census of India 2011 and 2001 (Provisional population totals, Bihar Series. 11) The spatial temporal change in child population and sex ratio of seventeen different districts of south Bihar plain have been discussed with reference to last decade (2001-2011).

With the help of tables, maps and others cartographic techniques the positive and negative change in child population and sex ratio have been deciphered with respect to south Bihar plain.

CSR = Child Sex Ratio

PNDT = Pre Natal Diagnostic Techniques

study area :

South Bihar plain is a part of Bihar State River Ganga Flows west to east in Bihar and divide it into two unequal parts. The south part of Bihar generally known as south Bihar plain. It extends an area of 40369km2. Lies between 24012'50'N latitude to 25016'N latitude and 830 46'E longitude to 87038'E longitude. The shape of this plain is triangular. Normal slope of south Bihar plain is south west to north east.

River Ganga makes northern boundary of this plain, on the south and east by state boundary of Jharkhand, on the west by river karamnasa and state of Uttar Pradesh, bounded it. This plain covers 43 percent land total area of Bihar and 37 percent population of State.

This plain is a complex of seventeen districts i.e., Bhagalpur, Banka, Munger, Lakhisarai, Sheikhpura, Nalanda, Patna, Bhojpur, Buxar, Kaimur, Rohtas, Aurangabad, Gaya, Nawada, Jamui, Jahanabad and Arwal.

According to 2011 census total population of this plain is 38405977 persons, population density is 951 persons per km^2 that is lower than state density (1102/km^2), total child population age group (0-6) is 6534633 that is 17.01 percent of total population of this plain.

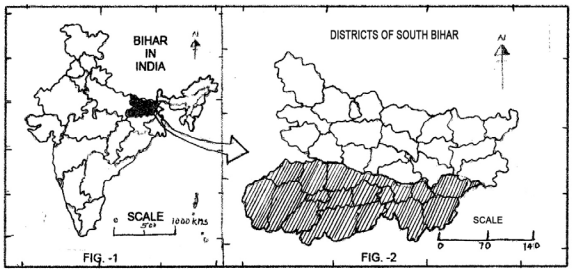

table – 1
Child population in 2011

Districts	Total Population (2011)	Person Child	Male	Female	Rural (Person)	Urban (Person)
Patna	5772804	905708 (15.69)	476906	428802	592733	312975
Gaya	4397383	762507 (17.41)	389247	373260	686603	75904
Bhagalpur	3032226	532307 (17.44)	275248	257059	444586	87721
Nalanda	2872523	501046 (17.44)	259703	241343	431174	69872
Rohtas	2962593	493047 (16.64)	256108	236939	432249	60798
Bhojpur	2720155	440847 (16.21)	230267	210580	386745	54102
Aurangabad	2511243	438065 (17.44)	230267	212809	402401	35664
Nawada	2216653	367231 (16.57)	184990	182241	335885	31346
Banka	2029339	362548 (17.87)	186986	175562	351551	10997
Jamui	1756078	313455 (17.85)	160287	153168	291047	22408
Kaimur	1626900	291785 (17.94)	150490	141295	282660	9125
Buxar	1707643	286969 (16.80)	149097	137872	264083	22886
Munger	1359054	221026 (16.26)	114841	106185	168812	52214
Jehanabad	1124176	193946 (17.25)	101103	92843	174085	19861
Lakhisarai	1000717	182234 (18.21)	95134	87080	159022	23212
Arwal	699563	123684 (17.68)	63728	59956	114903	8781
Sheikhpura	634927	118228 (18.62)	60952	57276	100178	18050
Total	38405977	6534633	3380363	3156270	5618717	915916

Note : figure in parentheses denote percentage to total population.

Source : Census of India – 2011, Provisional Population totals, Bihar Series 11

It is obvious from the table No. -1 that according to the current census of 2011, Population of children of age group 0-6 in south Bihar is 6.53 millions of these 3.38 millions are male and 3.15 millions are female considering residence and sex wise child population in the district of south Bihar. It is found that the district of patna recorded the highest male and female population both, followed by Gaya, Bhagalpur, Nalanda, Rohtas, Bhojpur, Aurangabad, Nawada, Banka, Jamui, Kaimur, Buxar, Munger, Jehanabad, Lakhisarai, and Arwal, Sheikhpura District recorded lowest in total child population and male. Female child population also.

In respect of rural child population Gaya district recorded the highest with 686603 persons followed by Patna, Bhagalpur, Rohtas and Nalanda, the ranking of Aurangabad is Sixth, Bhojpur Seventh , Banka Eighth, Nawada Nineth, Jamui Tenth, Kaimur Eleventh and Buxar Twelveth in terms of total rural child population. District Jehanabad ranked Thirteenth followed by Munger, Lakhisarai and Arwal. Sheikhpura district is bottom position in total No. of rural child population in age group 0-6 years.

If we glimpses the table No.-1 then we find that the district of Patna ranks first in terms of urban Child population in 2011. Bhagalpur ranked is second position , followed by Gaya, Nalanda, Rohtas, Bhojpur and Munger The position of Aurangabad is Eighth, Nawada Nineth , Lakhisarai Tenth and Buxar Eleventh in terms of total urban child population. Jamui is Twelveth position followed by Jehanabad, Sheikhpura, Banka and Kaimur Arwal district is bottom position in urban child population in age group 0-6.

The statement placed above depicts that the percentage of child population of age group 0-6 is 17.01 percent in south Bihar District Sheikhpura records highest percentage of child population with 18.62 percent in total population. Lakhisarai ranked second with 18.21 percent, the position of Kaimur is third with 17.94 percent child population. Banka (17.87) is at Fourth position Jamui, (17.85), Arwal (17.65), Buxar (16.80), Bhagalpur (17.55), Nalanda (17.44), and Aurangabad (17.44) are successively fifth, sixth, seventh, eighth, nineth and tenth position in percentage of child population. Gaya has 17.41 percent child population and ranked eleventh then Jehanabad (17.25 percent), Rohtas (16.64 percent) Munger (16.26 percent) and Bhojpur has 16.21 percent child population in total. Patna district is bottom position with (15.69 percent) in terms of percentage of child population in total.

GROWTH OF CHILD POPULATION
TABLE - 2

Districts	Child Population in (2001)	Child Population in (2011)	Decadal Growth	Decadal growth rate
Bhagalpur	472126	532307	60181	12.74
Banka	327903	362548	34645	10.56
Munger	205735	221026	15291	7.43
Lakhisarai	169320	182234	12914	7.63
Sheikhpura	109782	118228	8446	7.69
Nalanda	461240	501046	39806	8.63
Patna	818994	905708	86714	10.58
Bhojpur	423242	440847	17605	4.18
Buxar	271849	286969	15120	5.56
Kaimur	269812	291785	21973	8.14
Rohtas	484359	493047	8708	1.80
Aurangabad	398602	438065	39463	9.90
Jehanabad	294345	193946	317630	7.91
Gaya	687369	762507	75138	7.91
Nawada	359410	367231	7821	2.17
Jamui	276379	313455	37076	13.41
Arwal	---------	12684	---------	------
Total	6030467	6534633	504166	8.36

Source : Census of India – 2001-2011.

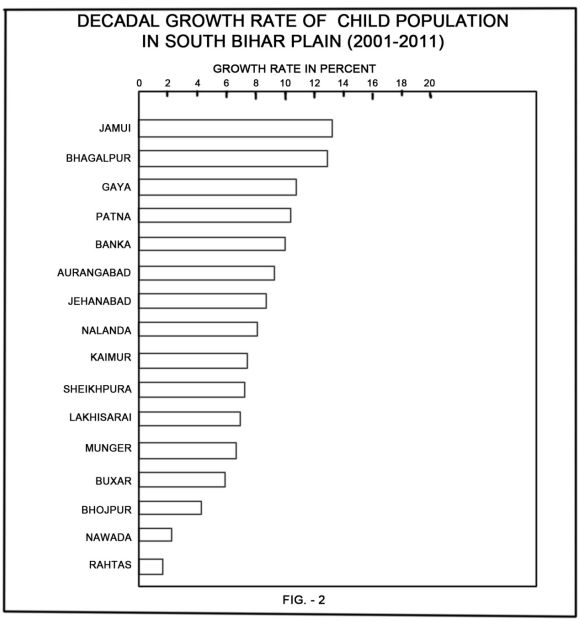

FIG. - 2

It is also obvious from table No. 02 the Decadal growth rate of child population in 2001-2011 is 8.36 percent in south Bihar plain Jamui (13.41 percent) recorded highest growth rate in all seventeen districts of south Bihar plain, followed by Bhagalpur (12.74 percent), Gaya (10.93 Percent), Patna (10.59 percent), Banka (10.56 percent), the rank of Aurangabad is sixth with 9.90 percent decadal growth in child population from 2001-2011. In this period Nalanda records 8.63 percent Decadal growth rate, Kaimur (8.14 percent), Sheikhpura (7.69 percent), Lakhisarai (7.63 percent), Munger (7.43 percent), Buxar (5.56 percent) and Bhojpur (4.16 percent). The decadal growth rate of Nawada district is 2.18 percent from 2001-11. Rohtas district records lowest decadal growth rate in child population with 1.80 percent from this period.

TABLE – 3
VARIATION IN CHILD SEX RATIO

Districts	Child Sex Ratio (2001)	Child Sex Ratio (2011)	Variation
Bhagalpur	966	934	-32
Banka	965	939	-26
Munger	914	925	+11
Lakhisarai	951	915	-36
Sheikhpura	955	940	-15
Nalanda	942	929	-13
Patna	923	899	-24
Bhojpur	940	899	-41
Buxar	925	925	0
Kaimur	940	939	-1
Rohtas	951	925	-26
Aurangabad	943	945	+2
Jehanabad	917	918	+1
Gaya	968	959	-9
Nawada	978	985	+7
Jamui	963	956	-7
Arwal	---------	941	----------

Source : Census of India – 2001,2011.

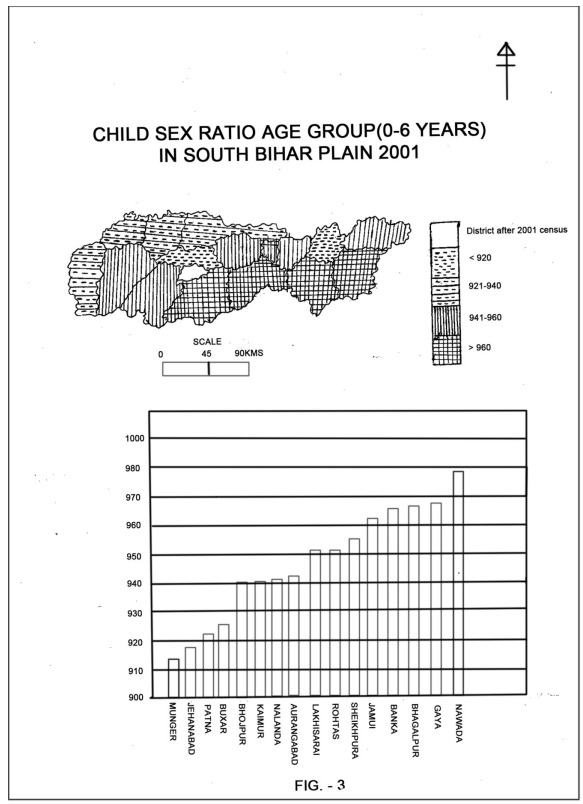

FIG. - 3

VARIATION IN CHILD SEX RATIO :

The child sex ratio stands for the number of girls per thousand boys in the age group 0-6 years. If we throw glimpses the table No. 3 on the column showing variation in child sex ratio showing decreasing trend in south Bihar. The figure for variation in CSR are very perplexing. In this respect out of seventeen districts of south Bihar plain only four districts CSR has increased. These districts are Munger (+11 points), Nawada (+7 point), Aurangabad (+2 point) and Jehanabad (+1 point) other eleven districts record decreasing trend in CSR, in respect of decreasing trend in CSR, Bhojpur (-41) stands first followed by Lakhisarai (-36 points), Sheikhpura (-15 point). The decreasing trend of child sex ratio in Nalanda is (-13 points), Gaya (-9 points) and Jamui (-7 points).

It is the most disturbing aspects of 2011 census data by for is the growing imbalances between the sexes in the youngest age group (0-6) Which is indicative of female foeticide. Although the number of girls continuous to decline the 2011 census shows a somewhere slowing of the process the decline now is by 11 points. More ever the high affected districts of south Bihar plain in 2011 are Bhojpur, Lakhisarai, Bhagalpur, Banka and Patna. In these districts CSR decline above 15 points. According to census 2011. The average child sex ratio of Bihar is 933 out of seventeen districts of south Bihar plain only nine districts are above this ratio these districts are Nawada (985), Gaya (959), Jamui (956), Aurangabad (945), Arwal (941), Sheikhpura (940), Kaimur (939), Banka (939) and Bhagalpur (934). In eight district of south Bihar plain CSR is less than state level (933). In this class category Jehanabad is bottom district by 918 female per thousand male in age group 0-6, such districts are Munger (925), Lakhisarai (915), Nalanda (929), Patna (899), Bhojpur (899), Buxar (925), Rohtas (925) and Jehanabad (918).

TABLE - 4

Sex Ratio	2001	2011
<925	Munger (914) Jehanabad (917) Patna (923) Buxar (925)	Patna (899) Bhojpur (899) Lakhisarai (915) Jehanabad (918) Buxar (922) Munger (925) Rohtas (925)

925 -945	Bhojpur (940) Kaimur (940) Nalanda (942) Aurangabad (943)	Nalanda (929) Bhagalpur (934) Banka (938) Kaimur (939) Sheikhpura (940) Arwal (941) Aurangabad (945)
>945	Lakhisarai (951) Rohtas (951) Sheikhpura (955) Jamui (963) Banka (965) Bhagalpur (966) Gaya (968) Nawada (978)	Jamui (956) Gaya (959) Nawada (985)

Source : Self Calculated from table – (III)

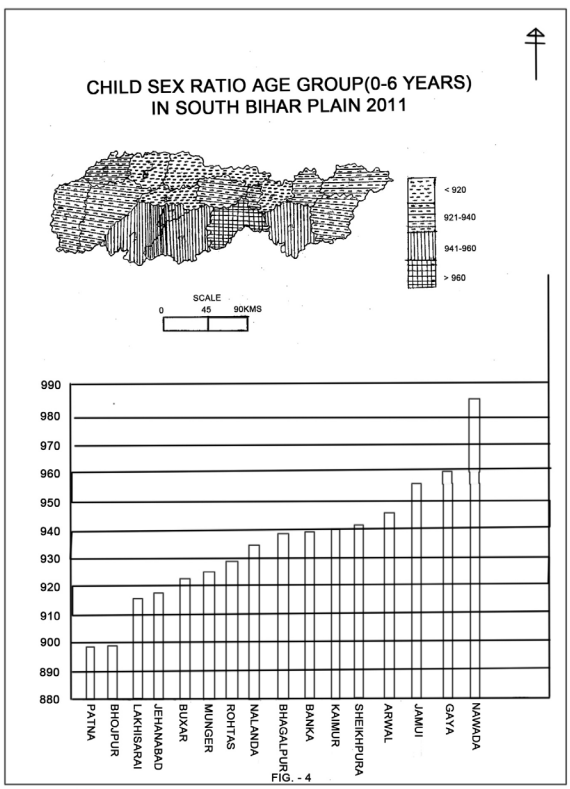

FIG. - 4

In a Patriarchal Indian Society son preference is know to have existed for centuries and persists even today. According to the most recent National Family Health Survey (NFHS) Conducted during 2005-06, nearly a quarter of women would prefer more sons than daughters but hurdle any would desire more daughters than sons. Widespread availability and use of prenatal diagnostic techniques for sex determination led to PNDT (Pre- Natal diagnostic techniques) (Regulation and prevention of misuse Act) in 1994 banning their use for determining the sex of foetus or revealing it to the parents. Despite the act and the Widespread campaign promoting Save the girl child message, decline in CSR has continued leading to a concern that neither the impale maintain of the act nor the campaign message have been very effective.

CONCLUSION :

The present research study clearly point outs the notable spatial temporal variation of child population and CSR at district level in south Bihar plain. In due course of time some districts recorded positive growth in CSR but some recorded negative growth son preferences is the root cause to negative growth in CSR some health facilities like sonography and PNDT are also helping to decrease in CSR. It is a serious message for our society and demography.

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