



Trends And Overview Of Sex Ratio In India

DEEPAK DALAL RESEARCH SCHOLAR DEPARTMENT OF GEOGRAPHY BABA MASTNATH
UNIVERSITY ROHTAK

Abstract:

Population enumeration in terms of gender composition is a key indicator to monitor the development pulse of a country and sex ratio is a tool to determine gender equity of the population. Sex ratio in India, is defined as the number of females per **1000** males in a population whereas internationally sex ratio is defined as number of males per **100** females. In developing countries such as India, sex ratio is a generally skewed in favour of the males. The prevailing patriarchal society creates a gender imbalance by viewing the male as an asset and the female as liability for the family¹.

Keywords: Gender, population, family, society, composition, determinant, asset.

I. INTRODUCTION

Over the past few decades, a declining child sex ratio favourable to males has become a characteristic of India's population pattern. This trend has been recorded in the country since the early 1980s and has not reversed since then. Sex ratios have declined in China and India for three decades, with no significant improvement².

According to the provisional population totals of Census 2011, out of a total population of **1,21,01,93,422** persons, **62,37,24,248** are males and **58,64,69,174** females. As per this, the sex ratio of India is **940**. The sex ratio at the National level has risen by seven points since the last Census in 2001. This is the highest since 1971³.

GENDER COMPOSITION OF POPULATION - WORLD TRENDS

The composition of population by gender is not uniform and shows diverse patterns across different countries of the world. Following Statement and Figure present the sex ratio in the ten most populous countries in the world during 2001 and 2011.

SEX RATIO OF SELECTED COUNTRIES

Sl. No	Country	2001	2011
1	World	986	984
1	China	944	926
2	India	933	940
3	U.S.A.	1,029	1,025
4	Indonesia	1,004	988
5	Brazil	1,025	1,042
6	Pakistan	938	943
7	Russian Fed.	1,140	1,167
8	Bangladesh	958	978
9	Japan	1,041	1,055
10	Nigeria	1,016	987

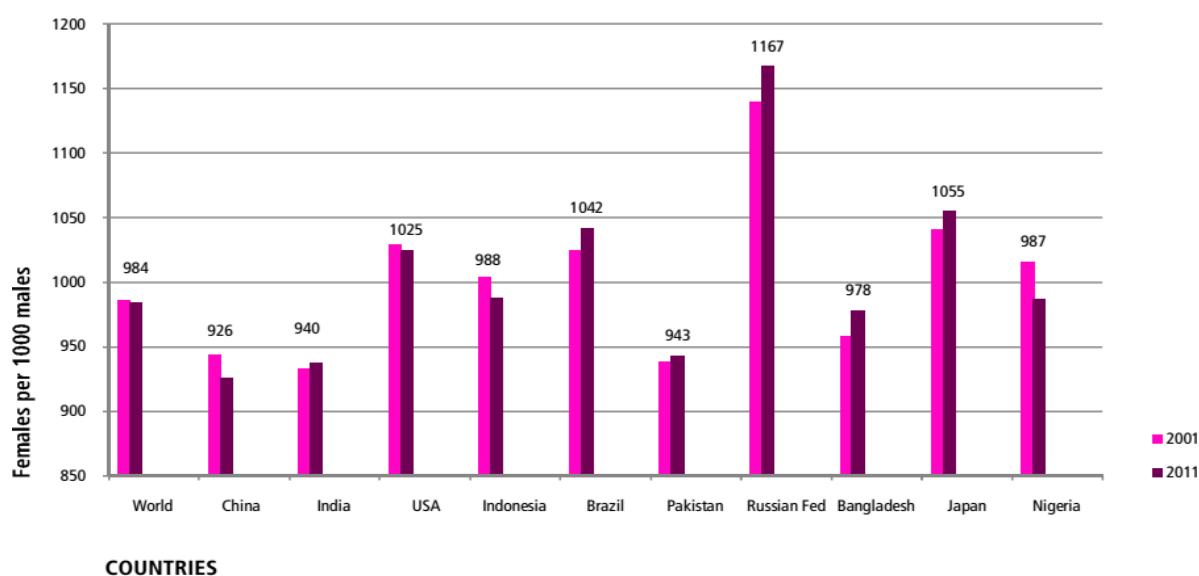
¹ Mahdya Pradesh, Directorate of Census Operations, Census of India 2011; Analytical Report on Primary Census Abstract,

p. 65

² Public Health Foundation of India, Implementation of the PCPNDT Act in India - Perspectives and Challenges, p. 17

³ India, Office of Registrar General & Census Commissioner, Provisional Population Totals, p. 78

TRENDS OF SEX RATIO IN MOST POPULOUS COUNTRIES: 2001-2011



Source: Provisional Population Totals - India, p. 79

It has been estimated that around the year 2011, the world will have **984** females against **1000** males. As is evident from the Statement, in USA, Russian Federation, Japan and Brazil females outnumber males, in the other six countries the balance is tilted towards the males. When compared to the previous decade, China, Indonesia, Nigeria and USA have shown a decline in the sex ratio in the present decade. The decline has been particularly sharp in Nigeria and Indonesia.

The sex ratio in USA, Russian Federation and Japan has always remained above unity despite minor variations⁴.

INDIA AMONG ITS NEIGHBOURS 2001-2011

Countries	2001	2011
India	933	940
China	944	926
Pakistan	938	943
Bangladesh	958	978
Sri Lanka	1010	1034
Nepal	1005	1014
Afghanistan	930	931
Bhutan	919	897
Myanmar	1011	1048

⁴ Ibid, p. 78

The above table indicates the situation in the immediate neighbourhood of India reveals a mixed picture. Myanmar (**1048**) Sri Lanka (**1034**) and Nepal (**1014**) have more females in their populations whereas in all other countries the sex ratio shows male domination⁵.

SEX RATIO IN INDIA: TRENDS AND OVERVIEW

According to the Census of India, the number of females for every **1000** males has been steadily declining decade after decade since 1901. Sex ratio at birth is the relative number of male and female births in a population. Worldwide, the normal SRB is measured as the number of boys born per **100** girls born in a population. However, India measures the SRB on a higher denominator, i.e. the number of female births per **1000** male births. The sex ratio for the age group of 0–6 years is called the Child Sex Ratio or juvenile sex ratio⁶.

Trends of Sex Ratio in India: 1901- 2011^{7*}



*** Provisional Population - Census 2011**

Sex Ratio is defined as the number of females per thousands males

⁵ Ibid, p.80

⁶ Op.cit., Implementation of the PCPNDT Act in India - Perspectives and Challenges, p. 18

⁷ India Registrar General & Census Commissioner, p.80

Source: Provisional Population Totals - India, p.81

The declining Sex Ratio in 1901 and 2011, as recorded by the Census, 1901 and 2011, demands attention. The general sex ratio for the population is the other measurement of long-term changes in the relative number of men and women in a population; this, too, has decreased substantially in India, from **972** in 1901 to **940** in 2011⁸.

The sex ratio in India has been historically negative or in other words, unfavourable to females. Above figure reveals that in the pre-independence period, the sex ratio declined consistently up to 1951 when it rose marginally. In the post independence period, the trend continued and the sex ratio slipped down for two consecutive decades after 1951 to reach **930** in 1971. During 1961-71 a steep fall of **11** points was seen in the sex ratio⁹.

After 1971 Census, trends were not consistent, showing increase in one decade and decline in the next. However, it was hovering around **930**. The sex ratio as per provisional results is the highest since 1971 and a shade below the level of 1961¹⁰.

⁸ Op.cit., Implementation of the PCPNDT Act in India - Perspectives and Challenges, p. 18

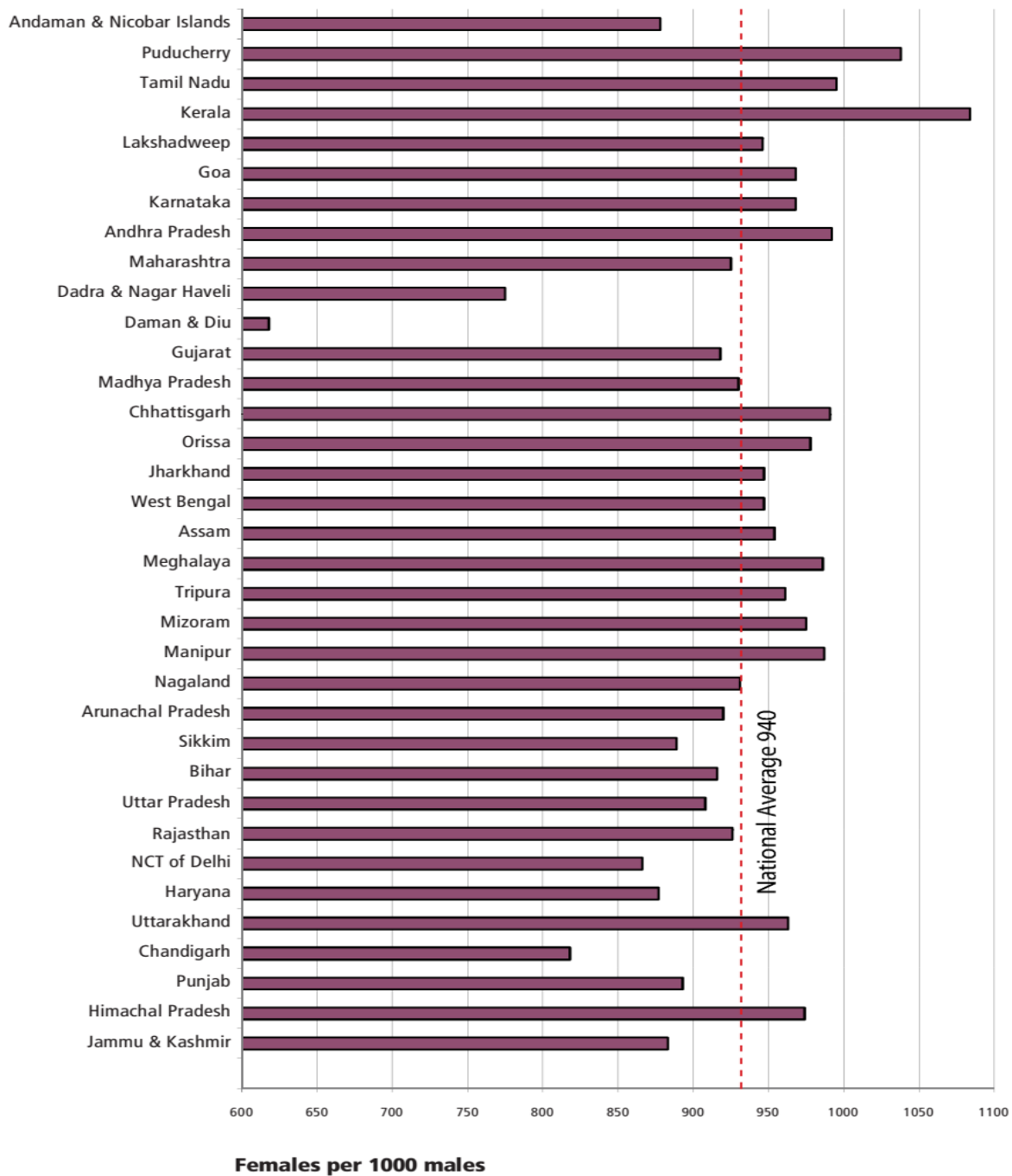
⁹ Op.cit., Provisional Population Totals - India, p.80

¹⁰ Ibid., p.81

TRENDS IN SEX RATIO IN STATES AND UTS: 2001-2011

Following statement provides recent trends of sex ratio of the total population, sex ratio in the age group 0-6 years and sex ratio of population aged 7 years and above for 2001 and 2011 for all the States and Union Territories¹¹.

SEX RATIO IN STATES AND UNION TERRITORIES: 2011



¹¹ Ibid, p.86

SEX RATIO OF TOTAL POPULATION AND CHILD POPULATION IN THE AGE GROUP 0-6 YEARS AND 7+ YEARS

State/ UT Code	India/States/Union Territory #	Sex ratio (females per 1,000 males)					
		Total population		Child population in the age group 0-6		Population aged 7 and above	
		2001	2011	2001	2011	2001	2011
1	2	3	4	5	6	7	8
	INDIA	933	940	927	914	934	944
01	Jammu & Kashmir	892	883	941	859	884	887
02	Himachal Pradesh	968	974	896	906	980	983
03	Punjab	876	893	798	846	888	899
04	Chandigarh #	777	818	845	867	767	812
05	Uttarakhand	962	963	908	886	973	975
06	Haryana	861	877	819	830	869	885
07	NCT of Delhi #	821	866	868	866	813	866
08	Rajasthan	921	926	909	883	923	935
09	Uttar Pradesh	898	908	916	899	894	910
10	Bihar	919	916	942	933	914	912
11	Sikkim	875	889	963	944	861	883
12	Arunachal Pradesh	893	920	964	960	878	913
13	Nagaland	900	931	964	944	890	929
14	Manipur	974	987	957	934	977	995
15	Mizoram	935	975	964	971	930	976
16	Tripura	948	961	966	953	945	962
17	Meghalaya	972	986	973	970	971	989
18	Assam	935	954	965	957	929	953
19	West Bengal	934	947	960	950	929	946
20	Jharkhand	941	947	965	943	935	948
21	Orissa	972	978	953	934	976	985
22	Chhattisgarh	989	991	975	964	992	995
23	Madhya Pradesh	919	930	932	912	916	933
24	Gujarat	920	918	883	886	927	923
25	Daman & Diu #	710	618	926	909	682	589
26	Dadra & Nagar Haveli #	812	775	979	924	779	752
27	Maharashtra	922	925	913	883	924	931
28	Andhra Pradesh	978	992	961	943	981	997
29	Karnataka	965	968	946	943	968	971
30	Goa	961	968	938	920	964	973
31	Lakshadweep #	948	946	959	908	946	951
32	Kerala	1058	1084	960	959	1,072	1,099
33	Tamil Nadu	987	995	942	946	993	1,000
34	Puducherry #	1001	1038	967	965	1,006	1,047
35	Andaman & Nicobar Islands #	846	878	957	966	831	868

 **Note:** # Union Territories

Source: Provisional Population Totals - India, p.87-88

② The pattern in sex ratio among the States and Union Territories are distinct. The top three States recording the highest value of overall sex ratio are neighbours located in the southern part of India namely Kerala (**1084**), Tamil Nadu (**995**), and Andhra Pradesh (**992**). Among the UTs,

the top three are Puducherry (**1038**), Lakshadweep (**946**) and the Andaman and Nicobar Islands (**878**).

- ② The lowest sex ratio among the States has been recorded in Haryana (**877**), Jammu and Kashmir (**883**) and Sikkim (**889**). Among the UTs the lowest sex ratio has been returned in Daman and Diu (**618**), Dadra and Nagar Haveli (**775**) and Chandigarh (**818**).
- ② Only two major States, Bihar and Jammu and Kashmir have shown decline in the sex ratio. The other Union Territories registering decline in overall sex ratio include Dadra and Nagar Haveli, Daman and Diu and Lakshadweep.
- ② The pattern of Child sex ratio (0-6 years) among the States/UTs in 2011 is provided in above table. The top three States recording the highest value of child sex ratio in the age group 0-6 years are Mizoram (**971**), Meghalaya (**970**) and Chhattisgarh (**964**). Among the UTs, the top three positions are held by Andaman and Nicobar Islands (**966**), Puducherry (**965**) and Dadra and Nagar Haveli (**924**).
- ② The lowest Child sex ratio (0-6 years) among the States have been observed in the States of Haryana (**830**), Punjab (**846**) and Jammu and Kashmir (**859**) while among the UTs, Delhi (**866**), Chandigarh (**867**) and Lakshadweep (**908**) occupy the bottom position.
- ② A Glance at the trend will show that in Census 2011, Child sex ratio (0-6 years) has registered an increasing trend only in six States and two UTs. What gives some cause for cheer is the fact that the States where the child sex ratio had dropped alarmingly in Census 2001 have now shown a slight improvement. This increase is substantial in Punjab (**798 to 846-57 points**), Haryana (**819 to 830-11 points**), Himachal Pradesh (**896 to 906-10 points**), Chandigarh (**845 to 867-22 points**), Gujarat (**883 to 886 - 3 points**) and Tamil Nadu (**942 to 946-4 points**). In addition, Mizoram (**964 to 971-7 points**) and Andaman & Nicobar Island (**957 to 966-9 points**) have also shown increasing trend in the child sex ratio during 2001- 2011¹².

¹² Ibid, pp. 90-91

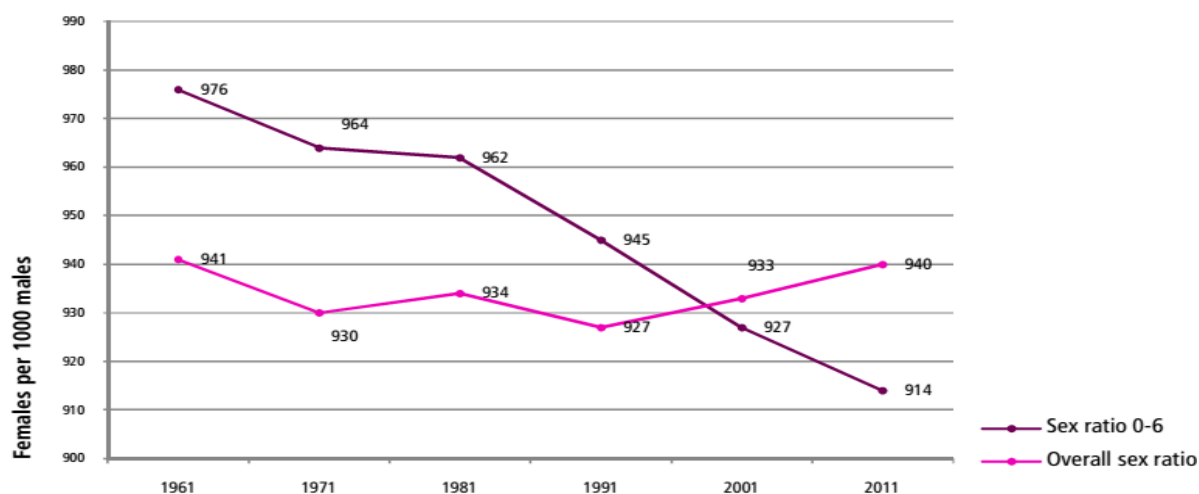
- ② Telangana is the 29th State of India which was formed on 2 June 2014. The total population of the State is **351.94** lakhs. Out of which **177.04** lakhs are males and **174.90** lakhs are females and sex ratio (female per 1000 males) is **988** and Child sex ratio is **933**.

Following table presents the sex ratio of the total population and the child population (0-6 years) from 1961-2011.

Sex ratio of total population and child population in the age group 0-6: 1961-2011

Year	Sex ratio in age Group 0-6 years	Overall sex ratio
1961	976	941
1971	964	930
1981	962	934
1991	945	927
2001	927	933
2011	914	940

Child sex ratio 0-6 years and overall sex ratio India: 1961-2011



Source: Provisional Population Totals - India

Above figure clearly brings out the fact that after 1991 there has been consistent rise in overall sex ratio. On the other hand, the fall in child sex ratio has been unabated since 1961. As per the provisional population totals of Census 2011, it has declined to reach an all time low of **914**¹³.

¹³ Ibid, p. 90

REASONS FOR THIS DECLINING TREND

The figures given in above Tables are obviously reflective of strong, deep-rooted discriminatory practices. The reasons for such discrimination are manifold. It is doubtless that most communities in India have historically exhibited a strong socio-cultural preference for a son, leading to the brutal practice of female infanticide, and a grave neglect of girls. Social customs and religious rituals also underscore the importance of a son over a daughter, shaping societal attitudes in favour of the

male child. Similarly, customs such as the practice of dowry pose financial burdens on the bride's family during and after marriage. Women bearing male children are treated with respect in the community and a son is considered as a security for old age¹⁴.

Approximately 50 million women are 'missing' in the Indian population. While female mortality and sex selective infanticide have contributed to skewed sex distribution in the past, the imbalance in the sex ratios today is also attributed to pre-natal sex determination and sex selection. The link between skewed sex ratios and the growing trend of misuse of increasingly sophisticated diagnostic techniques for prenatal sex determination and pre-conception sexselection has been widely documented, researched and evidenced in the past few decades. Though meant for legitimate medical purposes and aimed at strengthening sexual and reproductive health choices of women, some of these technologies are commonly being used to identify the sex of the foetus, sometimes even before it is conceived or in the second trimester of pregnancy¹⁵. As per National Crime Record Bureau (NCRB), a total of **132** cases, **210** cases and **221** cases were reported under foeticide during 2011, 2012 and 2013 respectively and a total of **63** cases, **81** cases and **82** cases were reported under infanticide during 2011, 2012 and 2013 respectively. State/UT-wise data relating to cases registered under foeticide during 2011- 2013, as maintained by the National Crime Record Bureau (NCRB) are at **Annexure-I**¹⁶.

There are several studies on the alarming nature of the trend in the sex ratio and its long-term demographic impact on communities and society. United Nation Population Fund (UNFPA) conducted a study on the issue of fertility decline and female foeticide in Haryana and Punjab and this study highlighted that there is inter-linkages between the two. This study stated that it may be possible to consider sex selective abortions as a subset of total induced abortions since

¹⁴ Op.cit., Implementation of the PCPNDT Act in India - Perspectives and Challenges, pp. 18-19

¹⁵ Ibid, p. 22

¹⁶ Lok Sabha Unstarred Question No. 1136 dated 28.11.2014

it is likely that illegal induced abortions could be sex selective in intent. This study also illustrated that since sex selective abortions are conducted illegally, it is near impossible to get the actual figures for such abortions conducted in India. Quoted in a recent article in 'The Economist', Nick Eberstadt, a demographer at the American Enterprise Institute, has said that this global trend of sex discrimination is the fateful collision between overweening son preference, the use of rapidly spreading prenatal sex determination technology and declining fertility.

There are also positive linkages between abnormal sex ratio and better socio-economic status and literacy. This contradicts any hypotheses that may suggest that sex selection is an archaic practice which takes place among uneducated and poor sections of the society. These realities – together as a body of gender discriminatory practices – have kept women disempowered, leading to skewed sex ratios over the years in many parts of the country¹⁷.

GOVERNMENT'S STRATEGY TO CHECK DECLINING SEX RATIO

Coordinated and convergent efforts are needed to ensure survival, protection and education of a girl child. Government has adopted a multi-pronged strategy entailing schemes and programmes and awareness generation/advocacy measures to build a positive environment for the girl child through gender sensitive policies, provisions and legislation. The details of the major actions being taken by the Government is given below:

- The Pre-natal Diagnostic Techniques (Regulation and Prevention of Misuse) Act, 1994, was enacted and brought into operation from 1 January, 1996, in order to check female foeticide. Rules have also been framed under the Act. The Act prohibits determination and disclosure of the sex of foetus . It also prohibits any advertisements relating to pre-natal determination of sex and prescribes punishment for its contravention. The person who contravenes the provisions of this Act is punishable with imprisonment and fine. Recently, PNDT Act and Rules have been amended keeping in view the emerging technologies for selection of sex before and after conception and problems faced in the working of implementation of the ACT and certain directions of Hon'ble Supreme Court after a PIL was filed in May, 2000 by Centre for Enquiry into Health and Allied Themes (CEHAT), an NGO on slow implementation of the Act. These amendments have come into operation with effect from 14th February, 2003¹⁸.
- The Government is rendering financial support to the States and UTs for operationalization of PNDT Cells, Capacity Building, Orientation & Sensitisation Workshop, Information, Education and Communication campaigns and for strengthening structures for the implementation of the Pre-Conception and Pre-natal Diagnostic Technique (PC-PNDT) Act under the National Health Mission (NHM).

¹⁷ Op.cit., Implementation of the PCPNDT Act in India - Perspectives and Challenges, p. 22

¹⁸ http://chdsla.gov.in/right_menu/act/pdf/PNDT.pdf

- The Minister of Health and Family Welfare has requested all the State Governments to strengthen implementation of the Act and to ensure timely steps to stop sex determination.
- Program review at the State level has been intensified. Five regional review workshops for North, West, Central, North-East and Southern regions were organized at Chandigarh, Ahmedabad, Mumbai, Imphal and Bhubneshwar during 2014-15.
- National Campaign "**Beti Bachao, Beti Padhao**" was launched in 100 gender critical districts in partnership with the Ministry of Woman and Child Development and the Ministry of Human Resource Development¹⁹. The Overall Goal of the "Beti Bachao, Beti Padhao (BBBP)" Scheme is to celebrate the girl child and enable her education. The objectives of the Scheme are to Prevent gender

biased sex selective elimination; Ensure survival & protection of the girl child; Ensure education of the girl child²⁰.

While talking about the survival of the foetus in the context of **Beti Bachao Beti Padhao**, the health of the mother comes first. The Government has taken different initiative to improve health and nutrition status of women and children through schemes like National Health Mission (NHM), Integrated Child Development Schemes (ICDS), etc.

Under the universal coverage of health services, different facilities have been provided in government hospitals to get better health care services. The Schemes under the NHM like the Janani Suraksha Yojana (JSY), Janani Sishu Suraksha Yojana (JSSK), 108 ambulance service, 104 health helpline, weekly iron and folic acid supplementation (WIFS) programme, etc. are really notable initiatives which would improve the health status of the women and children in the State compared to what it was 10 years back. But to attain this and to make a sustainable improvement, a coordinated effort with good convergence with all line departments would be required²¹.

➤ The Ministry of Women and Child Development has also taken several measures to check the declining sex ratio and to enhance the status of girl child as under:

- **National Girl Child Day: January 24** has been declared “**National Girl Child Day**” since 2009. To mark the occasion, the Ministry of Women and Child Development organized a panel discussion and deliberations on the theme 'Declining Child Sex Ratio: Issues and Challenges' on 24th January, 2013. It was observed during the discussions that there were sharp falls in the child sex ratios in many States that reflected a National trend cutting across class and the rural-urban divide. For meeting the challenge, the importance of

¹⁹ Lok Sabha Unstarred Question No. 3047 dated 7.8.2015

²⁰ India, Ministry of Women & Child Development, Annual Report 2014-15, p. 49

²¹ The Assam Tribune, Guwahati dated 24.7.2015

three 'A's, i.e. Advocacy, Awareness and Affirmative action were underlined by the participants.

- **Sectoral Innovation Council on Child Sex Ratio:** The Ministry has set up a Sectoral Innovation Council to look at the entire gamut of issues connected with the declining child sex ratio, identifying interventions which have worked and also to suggest innovative strategies, approaches and methods of intervention to address the declining in CSR problem. Several meetings of the council have been held and it has been proposed that the council members will provide key recommendations under the following three sub heads:

1. Legal framework and the related issues like Technology, violations and enforcement.

2. Policies & programmes for the girl child and their implementation
3. Advocacy, awareness and ethical issues-innovative approaches²²

All the three sub-groups have had meeting and the Council has submitted its final report to the Ministry.

- A new scheme '**Care and Protection of Girl Child**' - A **Multi Sectoral Action Plan to improve Child Sex Ratio**', with a comprehensive approach in a well coordinated and strategic manner by multiple stakeholders at different levels to arrest the decline and significantly improve the Child Sex Ratio in most critical 100 districts with adverse CSR spread across 12 States as a special intervention is being formulated. These districts are drawn on the basis of worse Child Sex Ratio as per Primary Census Abstract, 2011. The Action Plan will be implemented within the geographical jurisdiction of a district at Gram Panchayat/Ward level²³.

✓ OTHER INITIATIVES

Community sensitization and awareness generation activities are being undertaken, notably, '**Beti Janmohotsava**', which is an initiative under Mission Purna Shakti in Pali, Rajasthan for promoting the value of girl child amongst the community²⁴.

²² Op.cit., Annual Report 2012-13, p. 72

²³ Op.cit., Annual Report 2013-14, p. 67

²⁴ Ibid

- Recognising the importance of the trends emphasized in the Census 2001 data, the Planning Commission of India incorporated gender equity as an integral part of the broader strategy. Despite the efforts of the government, civil society organizations, NGOs, UN agencies and the media to keep the issue of female foeticide high on the public and policy agenda, little or no desired results have been forthcoming.
- As a part of the awareness campaign, religious and spiritual leaders have been approached to speak against sex selection, video spots on girl child and sex selection aired on national and private television networks. Brand ambassadors have been used for the Government's '**Save the Girl Child**' campaign. '**Atmaja**', a serial on the plight of the girl child has been telecast on the National Network²⁵.

CONCLUSION

Monitorable Targets of the 12th Plan for children is to improve the child sex ratio from **914** in 2011 to **950** by 2017. Creating awareness about the illegality of sex selection, and urging communities to question outdated rituals and social behaviour are a critical component of this struggle. The issue is being highlighted – through the media, through studies and interventions²⁶.

“The government and the civil society must go beyond policy-making and must quickly identify specific behaviours, cultural attributes, practices, media representations, mindsets and notions that propagate discrimination against daughters and consequently help sex- determination testing flourish despite its illegality”²⁷.

²⁵ <http://unicef.in/Story/1129/Declining-sex-ratios-a-matter-of-concern>

²⁶ Op.cit., Implementation of the PCPNDT Act in India - Perspectives and Challenges, pp. 31-32

²⁷ <http://www.downtoearth.org.in/>

References:

1. Bhattacharya, C.P. (2012). Gender Inequality and the Sex Ratio in Three Emerging Economies. Heriot-Watt University, Department of Economics, Working Paper No.2012-01.
2. Gye, Amie, Klugman, Jeni, Kovacevic, Milorad, Twigg, Sarah and Zambrano, Eduardo (2010). Measuring Key Disparities in Human Development: The Gender Inequality Index. United Nations Development Program Human Development Reports, Research Paper 2010/46.
3. Jayachandran, S. (2015). The Roots of Gender Inequality in Developing Countries. Annual Review of Economics, Vol. 7, DOI: 10.1146/annurev-economics-080614- 115404.
4. Kishor, Sunita and Gupta, Kamla (2009). Gender Equality and Women’s Empowerment in India. National Family Health Survey (NFHS-3), India, 205-06. Mumbai: International Institute for Population Sciences; Calverton’ Maryland, USA: ICF Macro.
5. Lonavath, K.A. (2014). Urban Sex Ratio: A Study on Regional Wise Towns in Erstwhile Andhra Pradesh, India. Global Journal for Research Analysis, Vol.3(7),ISSN No.2277-8160.
6. National Institute of Public Cooperation and Child Development (2008). Socio-cultural Study of the Declining Sex Ratio in Delhi and Haryana (Rep.). Printed at Power Printers, 2/8-A, Darya Ganj, New Delhi-2.
7. Rai, K.R, Singh, P.K., Parasuraman, S. (2013). Declining Sex Ratio of the Child Population in India: A Decomposition Analysis. Presented at the XXVII IUSSP International Population Conference, Busan, Republic of Korea, August 26-31.
8. Raju, E. (2014). Gender Discrimination in India. IOSR Journal of Economics and Finance, Vol. 2(5), e-ISSN: 2321-5933, p-ISSN: 2321-5925,PP55-65.
9. Retherford, D. Robert and Roy T.K. (2003). Factors Affecting Sex Selective Abortions in India 17 Major States. National Family Health Survey (NFHS-2), International Institute of Population Sciences, Mumbai,ISSN:1026-4736.
10. UNFPA (2015).Annual Report 2015.